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FIELD MANUAL

BASE DEFENSE

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HEADQUARTERS, DEPARTMENT OF THE ARMY
MARCH 1970

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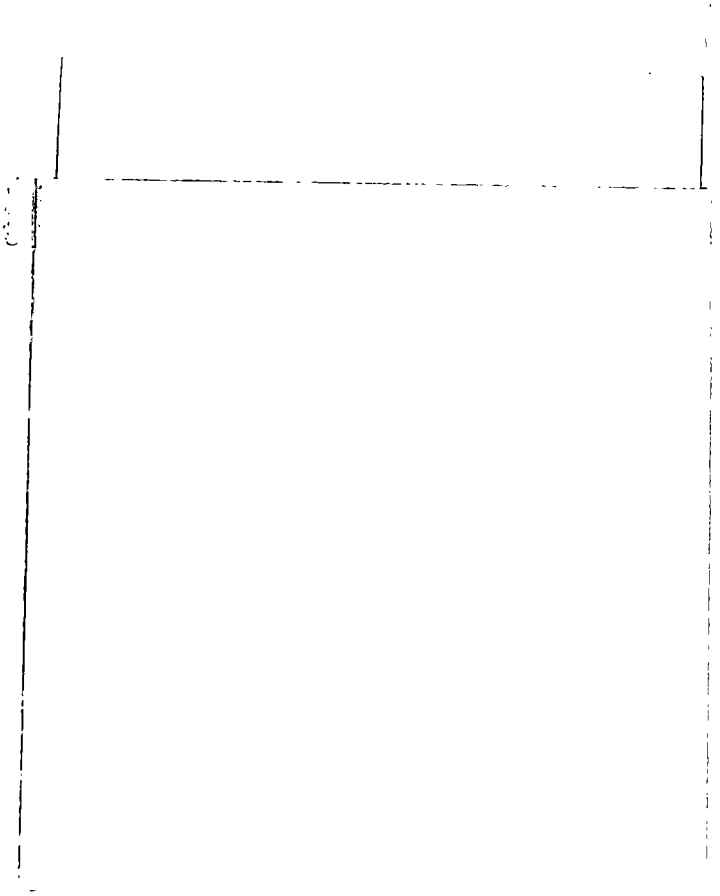

PREFACE

This manual sets forth basic guidance for commanders and staff officers of nontactical organizations and installations for planning and conducting base defense. While the manual emphasize base defense in stability operations, the principles, procedures, and techniques expressed are applicable, with minor modification, to other forms of conflict.

Responsibility for overall area tactical defense and operations, as well as defense against large enemy attacks, belongs to the area commander. The base commander is charged with responsibility for his own local and internal security to safeguard the base and base facilities from infiltration and small scale attacks. The base defense plan is coordinated with, and becomes a part of, the area defense plan.

In developing his defense plan, the base commander considers the mission, enemy, terrain and weather, and troops available. Whenever possible, the base is situated and configured to take advantage of natural terrain features in order to permit maximum defense with minimum interruptions of base operations. Vigilance, sound security, and a coordinated plan of action implemented by well trained and rehearsed personnel will not only reduce enemy interference with operations from the base, but will also tend to cause enemy forces to divert their operations from the base area.

Only rarely will the base commander have sufficient tactical forces available to provide an adequate defense posture. Therefore, his base defense organization must be developed by utilizing tenant units operating on or near his base. Additional base defense capabilities may be developed through cooperation and coordination with host and third country forces and by use of transient units passing through or near his area of responsibility.

The base commander's plan of action must achieve adequate protection to insure accomplishment of missions by base elements with as small a force as necessary, since any drain of time and personnel from operational activities will adversely affect the accomplishment of their missions. The plan for and assignment of tasks in base defense must include realistic recognition of priorities and criticality of functions for each unit within the base. Although adequate forces and thorough training of those forces are prime requisites for base defense, the base commander must prevent undue interference with unit mission accomplishment which might prove detrimental to the overall plan of operations. In event of an attack, defense of the installation is the highest priority mission of units located at the base.

Development of a reliable intelligence network and a cooperative, congenial system of mutual understanding and support with the local populace is essential to assuring the stability of area surrounding the base. A detailed civil-military operations plan, which integrates civil affairs and psychological operations to gain the support of the local populace, is an invaluable intelligence aid when vigorously executed.

Maximum utilization of available base and/or organizational equipment, communications, facilities, and supplies must be insured, with plans adapted to preclude additional requirements. If, however, there is an absolute need for support which is beyond base capability, it should be requested through appropriate channels.

The base defense, established to provide all-round security for the base with available forces, is characterized by detailed planning and centralized control.

Plans are prepared in advance for the defense of the base and include:

a. Centralized control by the base commander of all forces located on the base. Designation of sector commanders to facilitate control of operations.

b. Organization of a defensive perimeter manned by base units to deny the enemy entry into the base.

c. Establishment of a security area around the base to provide early warning of threats against the base and disrupt enemy movement against the defensive perimeter.

d. Organization of defense forces laterally and in depth within the perimeter so as to provide mutual support between defending units.

e. The identification of base and sector reserve forces. Reserves are employed to add depth to the defense and to increase the flexibility of the base and sector commanders by providing a capability to react in limiting penetrations and launching counterattacks against the enemy within the defensive perimeter.

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BASE DEFENSE

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CHAPTER 1
INTRODUCTION

Section I. GENERAL

1-1. Purpose

This manual provides guidance to commanders, staff officers, and other personnel concerned with the defense of various types of semipermanent bases, such as logistic installations, base camps, airfields, and airbases, under varying conditions of security that may exist in an area (theater) of operations.

1-2. Scope

a. This manual presents basic principles, concepts, and policies for planning and conducting base defense operations throughout the world. It provides guidance on the organizational and operational aspects of a base defense force; intelligence; mobility; firepower; command, control, and communications; and combat service support.

b. The material presented herein follows existing doctrine and adapts techniques to emphasize base defense in stability operations; however, these principles and procedures, with minor modifications, are also applicable to base defense during limited or general warfare.

1-3. Recommended Changes

Users of this publication are encouraged to submit recommended changes and comments to improve the publication. Comments should be keyed to the specific page, paragraph, and line of the text in which the change is recommended. Reasons will be provided for each comment to insure understanding and complete evaluation. Comments should be prepared using DA Form 2028 (Recommended Changes to Publications) and forwarded direct to the Commanding General, U.S. Army Combat Developments Command Institute of Combined Arms and Support, Fort Leavenworth, Kansas 66027. Originators of proposed changes that would constitute a significant modification of approved Army doctrine may send an information copy, through command channels, to the Commanding General, U.S. Army Combat Developments Command, Fort Belvoir, Virginia 22060, to facilitate review and followup.

1-4. Terminology

a. A base is an area or locality containing installations that provide logistic or other support. It may consist of air, ground, or naval installations, or a group of such elements, organized under one commander. It may be a designated portion of a land mass, an island, a group of islands, or combinations thereof.

b. A glossary of base defense terminology follows appendix A. In addition, terms that are used repeatedly in this manual also are explained in the text.

1-5. Base Defense Environment

a. Defense of units and installations in tactical operations is an integral part of the combat mission. Defense in this environment is adequately covered in appropriate tactical field manuals and doctrinal publications.

b. Rear area protection (RAP) is executed by an area commander, whose responsibilities include the mission of protecting the resources of his area from interruptions caused by enemy activities or natural disaster. This is a territorial responsibility, in which base commanders are charged with the mission of providing for the local defense of their immediate base areas. In addition, base commanders may be asked to provide resources for other RAP activities as outlined in FM 19-45-1.

c. The base defense environment, as addressed in this manual, is established in an area generally controlled by friendly forces, but not sufficiently secure to prevent movement of small groups, the establishment of firing positions, or the mounting of small scale attacks. Therefore, the provisions of this manual are normally applicable to the defense

of bases in RAP situations and in stability operations.

d. Listed below are conditions which may characterize the environment for base defense in stability operations.

(1) U.S. forces are guests in a host country.

(2) There are other nations in similar roles in the same host country.

(3) There may be no unity of command; all forces may individually report to their own chiefs of state.

(4) Although there is organized, armed conflict, there is no state of war.

(5) Many of the insurgents do not wear uniforms. Some may wear government uniforms. Insurgents cannot always be distinguished from government supporters or neutrals except when they are conducting overt operations.

(6) Support for the insurgents is provided both overtly and covertly from nations or from groups within nations that are, for the most part, not at war with the host country. Such nations or groups may provide sanctuaries where insurgent forces may train, regroup, and resupply.

(7) Paramilitary functions assume increased emphasis, sometimes with higher priorities than military functions.

(8) There is no military "front"; the basic military policy of maintaining continuous contact cannot be effected.

(9) Insurgents typically do not hold territory. They disperse at the appearance of a stronger force and regroup when it departs.

(10) The insurgent infrastructure or shadow government may parallel the official government in location and function. Both governments use the same population base for taxation, recruitment, and logistic support.

Section II. BASE DEFENSE

1-6. Mission, Functions, and Responsibilities

Base defense consists of the local military measures, both normal and emergency, required to nullify or reduce the effectiveness of enemy attacks on, or sabotage of, a base to insure that the maximum capacity of its facilities is available to supported forces.

a. General. The commander of an area or a subarea that contains a base is responsible for its overall defense against enemy forces. The base commander, however, is responsible for its local defense. The base commander must have under his operational control all forces, regardless of Service, that are assigned to the base primarily to provide local defense of his base. Forces assigned to the base for other primary purposes will also assist in local defense during an attack. Each Service force commander at a base is responsible for—

(1) Participating in preparation of base defense plans.

(2) Training his forces for base defense.

(3) Providing appropriate facilities and essential personnel for the base defense operations center (para 2-3) and appropriate personnel for the base defense force commander's staff.

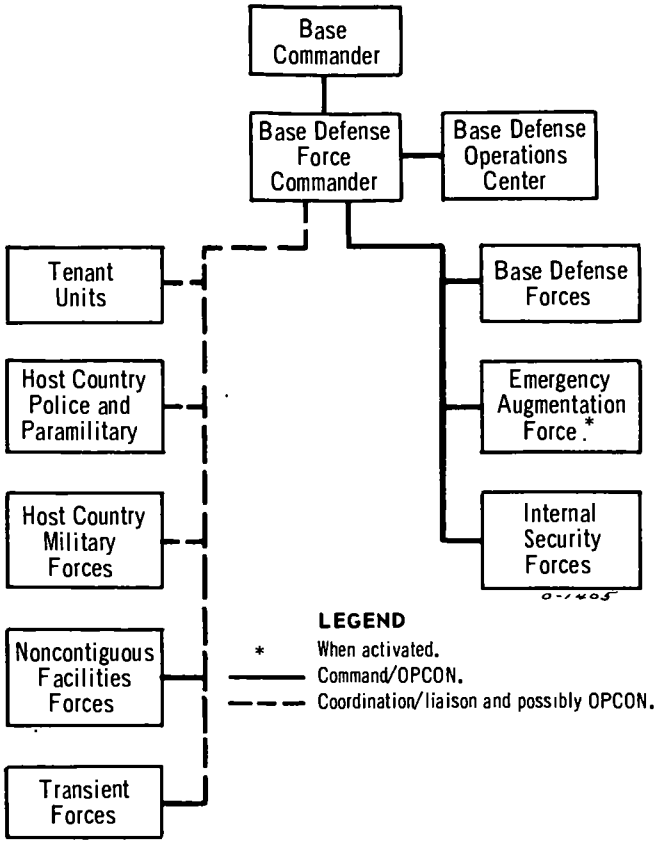
(4) Providing for internal security of his own command.

b. Base Commander. The mission of the base commander is to exercise command, control, and administration of the base and also the necessary control of resident and transient units not a part of the base command.

(1) A base commander may also be the area commander. He may be the component Army, Navy, Marine Corps, or Air Force commander, or he may be designated separately.

(2) The base commander's responsibilities include the establishment of the overall defense organization as well as the planning, preparation, and execution of all defense measures. Figure 1-1 depicts a type organization for base defense. If the base mounts or supports operations of two or more Services that occupy and operate noncontiguous facilities within the base area, the base commander, as base defense coordinating authority, plans and directs the employment of forces from noncontiguous facilities in base defense roles. To assist in the execution of base defense functions, the commander normally appoints a base defense force commander.

c. Base Defense Force Commander. The base defense force commander is normally appointed to supervise the preparation of detailed defense plans to include establishment of defensive sectors, to conduct the required training, to provide



NOTE: When the base is under attack, the BDF commander will normally assume OPCON of all individuals and forces engaged in the attack and may require units to divert all or part of that unit's equipment and personnel to his OPCON.

Figure 1-1. Type organization or base defense.

for or coordinate logistic support, and to control base defense operations. As the base commander's special representative, the base defense force commander coordinates the planning efforts of all elements scheduled to participate in the base defense. During the defense, he exercises command authority over these elements. Commanders of base elements may be given responsibility for the defense training of their forces or for making their forces available to the base defense force commander for training. Additional requirements such as procurement and storage of essential supplies, construction of defense installations, medical support, and communication assistance may also be levied against these commanders, consistent with overall requirements.

d. Base Defense Force. The mission of the base defense force, whether it be an assigned or a provisional force, is to prevent, resist, or destroy an enemy attack by destroying or trapping the enemy force, reducing the enemy capacity for offensive action, or denying the enemy entry into the base area. Detection and destruction of forces organized in strength are responsibilities of the tactical area commander; however, the BDF commander may initiate offensive action against detected small bands. The accomplishment of this basic mission requires thorough planning for an aggressive defense fully supported by the other forces of the base command.

e. Major Tenant Units. All units assigned to the base constitute elements of the overall defense force of the base. During an enemy attack or threat, some elements continue their primary function longer than others. In this respect, all local unit defenses are coordinated by the base defense force commander to insure that each contributes to the overall defense of the base as well as to the local security of the areas in which the unit is quartered or employed. Since all tenant units are not regularly organized for employment in base defense tasks, thorough planning is required to provide appropriate individual weapons, ammunition, and equipment, as well as combat and logistic support to those units tasked for base defense missions.

f. Transient Units. Transient units, or other units not a part of the base command, may be assigned to the operational control of the base commander or the base defense force commander for emergency defense. Transient units may be elements of U.S. Service components or host or third country military forces. The authority, mutual responsibility, and command relationships involved in the employment of transient U.S. forces present at the base during an attack, or when the base is threatened with an attack, are covered in JCS Pub. 2.

g. All Units. In addition to their assigned active defense missions (i.e., air defense force conducting operations against enemy aircraft and missiles), all units in the base area are responsible for maximum implementation of passive defense. Passive defense consists of measures taken to reduce the probability of and to minimize the effects of damage caused by hostile action, without the expectation of taking the initiative. Responsibility for conduct of specialized passive defense measures is assigned to firefighting units, chemical units, medical units, and other appropriate organizations capable of satisfying passive defense requirements. Additionally, all units assigned to the base initiate passive defense measures, such as dispersion, camouflage, blackout, and employment

of shelters. Employment of these measures will assist in preserving the operating integrity of the base and insuring combat effectiveness for decisive action against enemy attack.

1–7. Command Relationships

Command relationships for base defense operations must provide unity of command while preserving simplicity. The urgency of base defense operations requires clear-cut authority.

a. An area command is composed of those organized elements of one or more of the Armed Services, designated to operate in a specific geographical area which are placed under a single commander. The area command may range in size from an area (theater) of operations to a small urban complex. The purpose of such area assignment is—

(1) To secure unity of effort in such operational missions as may be assigned to commanders.

(2) To coordinate defense, logistics, and the use of available facilities.

(3) Any combination of these.

b. The commander of a unified or specified command, to provide for the effective defense of a base within his command or for joint planning within his area of responsibility, must—

(1) Assign the responsibility for defense of the base and surrounding local defense areas.

(2) Establish the method of command or coordination to be exercised.

(3) Insure the establishment of appropriate command relationships between subordinate area and base commanders.

c. Command relationships and security/defense responsibilities vary at the base command level because of the possible multinational and multi-Service force combinations involved in the overall defense effort of a given base. Base ownership, national level agreements, and mutual agreements among senior commanders are the determinants of relationships and responsibilities in the majority of cases. The relationship between U.S. Service components and host country forces is included in the directive of the U.S. establishing authority. This relationship is generally one of mutual coordination and cooperation. Relationships between/among U.S. Service components utilizing the same base are also outlined in the directive of the establishing authority. These relationships follow the principles designated for joint operations, attachment, or support as outlined in JCS Pub. 2.

1–8. Organization of Forces

a. The overall organization for base defense includes three types of elements:

(1) Those permanently assigned base defense/security responsibilities.

(2) Those assigned base defense responsibilities on an "as required" basis.

(3) Those assigned base defense responsibilities on an "as available" basis.

b. Elements permanently assigned base defense/responsibilities are—

(1) Table of organization and equipment (TOE) or provisional-type base defense force (BDF) which have been assigned a primary mission to defend the base. This force includes personnel and equipment for command and control; conduct of patrols; manning of outposts, listening posts, and the base perimeter; and reserve/reaction force activities.

(2) Internal security force. Component police and security elements make up this force. Although not normally a part of the BDF per se, these forces perform their routine security duties in close coordination with the base defense force commander to insure complete protection and integration of defensive planning.

(3) Combat support and combat service support units. These are relatively static support units, such as communications and maintenance elements, which exercise their support capabilities from within the perimeter of the base.

c. Elements assigned base defense responsibilities on an "as required" basis included units, or increments thereof, normally occupying or operating in the base area, whose primary mission is not base defense. These elements, referred to as the emergency augmentation force, supplement the capabilities of the BDF when the degree of threat or intensity of enemy attack dictates that they cease their primary functions and assist in base defense. The emergency augmentation force may consist of U.S., host country, or third country ground, naval, or air forces.

d. Elements assigned base defense responsibilities on an "as available" basis include—

(1) Transient units of U.S., host, or third country temporarily located in the base area.

(2) Tenant units on the base between operations.

(3) Host or third country units normally located in areas adjacent to the base perimeter that have been designated, by their respective commanders, to provide assistance to the base when their own operations do not require total effort.

e. Chapter 2 contains a more detailed discussion of the types of elements included in this paragraph.

Section III. Operational Concepts

1-9. General

Base defense includes all actions that units occupying the base must take to protect themselves from enemy acts. Such actions inevitably interfere to some degree with the primary mission of the elements involved. To avoid unnecessary interference, the following principles apply:

a. Tenant units not assigned primarily for base defense are normally used in the role or configuration for which they are organized and trained except when required for duty as emergency augmentation forces during an all-out attack on the base.

b. Combat, combat support, and combat service support elements are specifically allocated for base defense missions when enemy actions are frequent, prolonged, or severe.

c. When emergency augmentation forces are used in base defense situations, they are normally employed for the minimum time possible. They must expeditiously resume their primary functions as soon as the situation permits.

d. Base tenant unit personnel are responsible for local security. The organization of a provisional defense force or the assignment of a combat unit to provide security for the base does not relieve them of this responsibility.

1-10. Concept

a. The overall concept of base defense includes all actions required to preserve the operating integrity of the base. Regardless of the military measures applied, there is no defense that will prevent an enemy from attacking and damaging a base if he is willing to pay the price in manpower and materiel.

b. Defense of the critical areas is a primary consideration. The critical areas are facilities and installations designated by the base commander or higher authority, whose continued operation is essential for the accomplishment of the primary mission. Included are power stations, POL and ammunition storage sites, aircraft facilities, and artillery emplacements.

c. Defense of a military base involves a combination of area denial actions, aggressive offensive operations, hardening and dispersal measures, and immediate reaction to enemy threat or attack. While hardening of facilities and maintaining an immediate reaction force is the responsibility of the base commander, area denial actions and major offensive operations are the responsibility of the area commander. Use of barriers, natural obstacles, and aggressive offensive action denies the enemy access to the area immediately surrounding the base. If he is kept at a distance he cannot launch damaging attacks at the base. If he penetrates the area to within range of his artillery-type weapons, hardening and dispersal of base resources reduce the damaging effects of the fires employed. Plans are prepared to counter the threat or attack, and reaction forces are kept available to immediately implement these plans.

Section IV. FUNDAMENTALS OF BASE DEFENSE

1-11. General

The base defense, established to provide all-round security for the base with a minimum of available forces, is characterized by detailed planning and centralized control. Security measures are necessary to safeguard troops, installations, and equipment; and they may also include provisions to protect adjacent key civilian communities or communications centers, if feasible. Constant and aggressive action by friendly elements against regular enemy forces prevents their buildup and constitutes a major element of base defense. The charac-

teristics, capabilities, and weaknesses of the enemy force require constant evaluation. Vigilance and sound security measures not only reduce enemy interference with operations from the base, but also tend to cause enemy forces to divert their operations from the base area. Planners consider the following funamentals when planning the base defense.

1–12. Fundamentals

a. Use of Terrain. Proper evaluation and organization of the area are essential to reduce the number of forces required for base defense. Factors considered are—

(1) Natural defensive characteristics of the terrain.

(2) Use of artificial obstacles to enhance the natural defense characteristics of the terrain.

(3) Existing roads and waterways used for military lines of communications (LOC) and civilian commerce.

(4) Control of land areas surrounding the base complex to a range beyond that of enemy mortars and rockets and also control of water approaches.

b. Security. Early warning of pending actions insures the base commander time to react to any threat. Outposts, patrols, ground surveillance and countermortar radar, scout dogs, and air reconnaissance and surveillance provide early warning. Civilian informants and actions of indigenous personnel near the base are excellent indicators of pending enemy actions. Security measures vary with enemy threat, forces available, and other factors; however, all-round security is essential.

c. Mutual Support. Defending forces are positioned to insure mutual employment of defensive resources, which include fires, observation, and maneuver elements. Mutual support between defensive elements requires careful planning, positioning, and coordination because of the circular aspects of the defensive area. Surveillance, obstacles, prearranged fires, and the provision for maneuver elements to exploit or reinforce fires are used to control gaps. Defense plans provide for use of all available support including armed helicopters and close air support.

d. All-Round Defense. In defensive planning, the base commander has to be prepared to defend against enemy attack from any direction. Plans are sufficiently flexible and reserves are positioned to permit reaction to any threat. The commander commits maneuver elements and available supporting weapons to detect, engage, and destroy the enemy force. All personnel within the base area are assigned positions and sectors of responsibility.

e. Defense in Depth. Alternate and supplementary positions, combat outposts, and mutually supporting strongpoints forward of the base forward defense area extend the depth. The commander plans fires throughout the defensive area up to the maximum range of available weapons. Portable obstacles may be placed around critical targets during periods of reduced visibility to disrupt the enemy's plan based on visual reconnaissance and add depth to the defense.

f. Responsiveness. Attacks against a base may range from long-range sniper, mortar, or rocket fire to attacks by suicide demolition squads or major forces. The enemy has the advantage of deciding when, where, and with what force he will attack. The defender positions his forces and plans fires and movement to meet the widest possible range of contingencies. The defender prepares plans, to include counterattack plans, and rehearses, evaluates, and revises them as necessary. The defensive plan contains procedures for timely response by fire support teams and maneuver forces.

g. Maximum Use of Offensive Action. Since the objective of the base defense is to maintain a secure base, the defender uses offensive action to the maximum to engage enemy forces outside the base. On initial occupation of the base site, friendly forces take offensive actions to destroy enemy forces in the immediate area. Once the defensive area is clear, a relatively smaller force defends the base, thereby releasing other forces for their primary operations. The base defense force commander employs patrols, raids, ambushes, air attacks, and supporting fires to harass and destroy the enemy force to prevent its regaining the capability to threaten the base. The base defense force commander maintains constant liaison with major tactical unit commanders, keeps them informed, and requests that they conduct appropriate actions to remove the threat.

CHAPTER 2
BASE CONFIGURATION AND DEFENSE FORCE ORGANIZATION

Section I. GENERAL

2-1. Introduction

a. In determining the organization required for base defense, the base commander considers the mission, enemy, terrain and weather, and troops available (METT). The configuration of the base is another primary consideration in determining the number of personnel and the items of equipment needed. Personnel and equipment available to the commander, as well as defense requirements, will vary from base to base; however, the organization adopted must provide for maximum defense with minimum interruptions of base operations. The base commander allocates available resources to the base defense force commander after considering the factors of METT, to include—

(1) Enemy threat.

(2) Relative importance of facilities within the base.

(3) Vulnerability of the base.

(4) Effect of security measures on efficiency of base operations.

(5) Limitations imposed and advantages from physical characteristics of the installation.

(6) Characteristics of the surrounding area, including terrain and population density.

(7) Probable risk.

(8) Availability of resources.

(9) Evaluation of potential damage or loss.

(10) Alternative measures or techniques.

(11) Evaluation of physical security capabilities with effective use of available resources.

b. Examples of U.S. resources are—

(1) Military intelligence.

(2) Military police.

(3) Infantry.

(4) Cavalry (armored and air).

(5) Engineers.

(6) Artillery (field and air defense).

(7) Armed aircraft.

(8) Naval water craft.

(9) Surveillance elements (radar, sound, aviation).

(10) Searchlights.

(11) Countermortar radars.

c. In addition to the U.S. resources, indigenous resources are normally found in the internal defense environment. Use of these resources in base defense is determined to a great extent by the "coordination and cooperation" attained by the base commander with the host country officials/civilians or by agreements consummated between forces at national level. These resources include—

(1) Regular armed forces (ground, air, naval).

(2) Paramilitary forces.

(3) Irregular forces.

(4) Police.

2-2. Typical Force Components

a. The base commander generally appoints a base defense force commander and designates units to provide personnel, equipment, and material to form the base defense force (BDF).

b. The principal tactical-type increment of the BDF is an assigned or provisionally organized defense force. This force is augmented by elements of major tenant units, host or third country units, internal security units, or adjacent units, as required by the stage or intensity of enemy activity within the commander's area of responsibility.

c. In order for the BDF commander to insure integration of defense plans and maximum effectiveness of total base defense effort, a control center is a prime requisite. The following paragraphs of this section describe a typical base de-

fense operations center which fulfills this requirement and other types of components comprising the overall defense force.

2–3. Base Defense Operations Center

a. The BDF is the nucleus in all matters pertaining to defense of the base and its resources. Its basic structure is shown in figure 1–1. The key element of the BDF is the base defense operations center (BDOC), figure 2–1. Whether it is a combined, joint, or uni-Service operations center depends on the combination of forces involved. This center, a fully manned, continuously functioning entity—

(1) Keeps the commander informed of the current situation in his area.

(2) Prepares comprehensive, detailed plans to implement the commander's overall base defense and security plan.

(3) Insures participation of all units in an energetic combination of active and passive defense and security measures.

(4) Reduces the divergent or conflicting interests inherent in the possible multi-Service, multinational, and multilingual environment of the BDF organization.

(5) Provides centralized collection and analysis of information from the various intelligence and operational sources and disseminates resultant intelligence as appropriate.

(6) Provides the essential command and control organization necessary to conduct coordinated defensive operations.

b. The BDOC is similar in many respects to a tactical operations center (FM 101–5). Representatives of the following agencies or activities are present on a continuous basis:

(1) Operations.

(2) Intelligence.

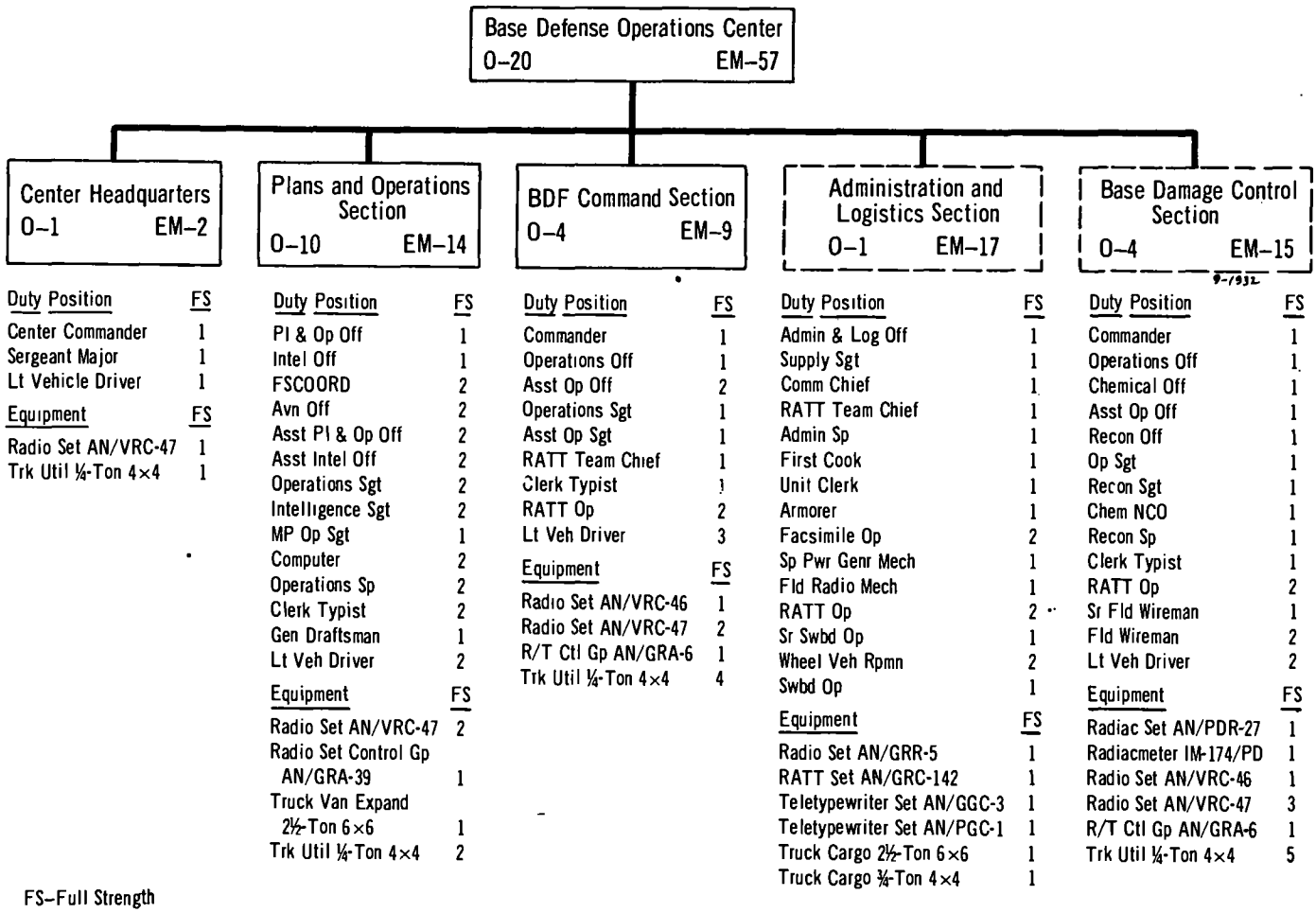
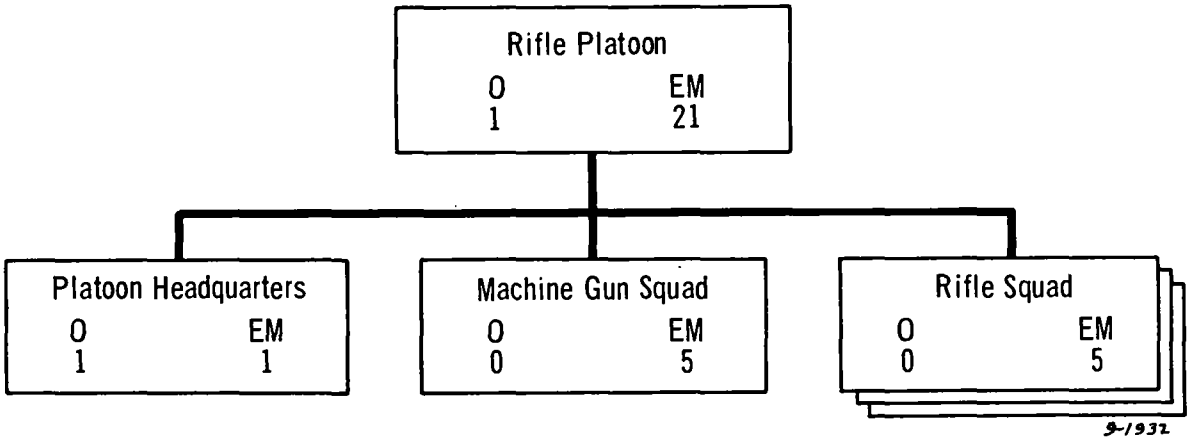


Figure 2–1. Type base defense operations center.

MISSION. To protect a base and the essential land area surrounding it by engaging, delaying, repelling, and/or destroying an enemy attacking or penetrating the base.

CAPABILITIES.
A. Performs in above role on a continuing basis against lightly armed forces.
B. Assists tactical relief elements in closing with and destroying or capturing the enemy.
C. Conducts reconnaissance patrols internal and external to the base perimeter.
D. Occupies outposts/listening posts and perimeter defensive positions.
E. Capitalizes on all forms of mobility.

MOBILITY. One hundred percent mobile from sponsoring element resources, as required.



Duty Position	FS	RMK
Platoon Leader	1	
Platoon SGT	1	

Equipment	FS
Radio Set AN/PRC-25	1

Duty Position	FS	RMK
Squad Leader	1	12
Machine Gunner	2	11
Asst Mach Gunner	2	11

Equipment	FS
Radio Set AN/PRR-9	1
Launcher Grenade 40mm	1
Machine Gun Lt Flex	2

Duty Position	FS	RMK
Squad Leader	1	
Grenadier	1	12
Rifleman	3	

Equipment	FS
Radio Set AN/PRR-9	1
Launcher Grenade 40mm	1

REMARKS
All personnel armed with 5.56mm rifle unless otherwise indicated.
11 Armed with pistol automatic caliber .45.
12 Armed with launcher grenade 40mm and pistol automatic caliber .45.

Figure 2-2. Type base defense rifle platoon.

(3) Air support.
(4) Fire support.

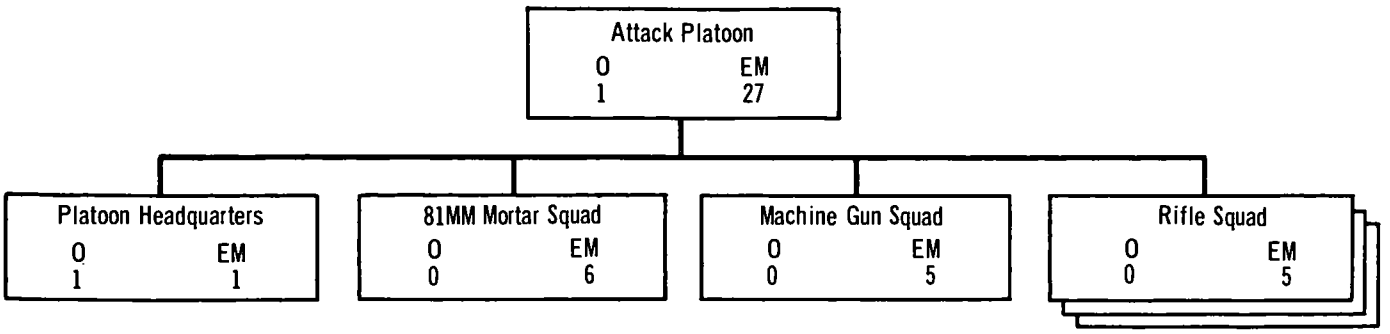
The base commander provides representatives of other types of organizations (engineer, civil affairs, air defense, etc.) to his base defense force commander on an "as required" basis. Multi-Service and multinational representation, with decision-making authority, is present in the BDOC when elements of their armed forces or police or paramilitary forces are directly involved in the overall base defense effort.

c. The BDOC structure facilitates accomplishment of the defense requirements established by the base commander. The center consists of two

MISSION. To protect a base and the essential land area surrounding it by engaging, delaying, repelling, and/or destroying an enemy attacking or penetrating the base.

CAPABILITIES.
A. Performs in above role on a continuing basis against lightly armed forces.
B. Assists tactical relief elements in closing with and destroying or capturing the enemy.
C. Conducts combat and reconnaissance patrolling, spoiling and counterattacks.
D. Occupies outposts/listening posts and perimeter defensive positions.
E. Capitalizes on all forms of mobility.

MOBILITY. One hundred percent mobile from sponsoring element resources, as required.



Duty Position	FS	RMK
Platoon Leader	1	
Platoon SGT	1	
Equipment		**FS**
Radio Set AN/PRC-25		1

Duty Position	FS	RMK
Squad Leader	1	12
Forward Observer	1	
Fire Dir Cmpt	1	40
Gunner	1	11
Ammo Bearer	1	01
Asst Gunner	1	11
Equipment		**FS**
Radio Set AN/PRC-25		2
Reel Equipment CE-11		2
Truck cargo ¼-ton 4×4		1
Trailer CGO ¼-ton		1
Mortar 81MM on mount		1
Launcher Grenade 40MM		1

Duty Position	FS	RMK
Squad Leader	1	12
Machine Gunner	2	11
Asst Mach Gunner	2	11
Equipment		**FS**
Radio Set AN/PRR-9		1
Launcher Grenade 40MM		1
Machine Gun Lt Flex		2

Duty Position	FS	RMK
Squad Leader	1	
Grenadier	1	12
Rifleman	3	
Equipment		**FS**
Radio Set AN/PRR-9		1
Launcher Grenade 40MM		1

REMARKS
All personnel armed with 5.56mm rifle unless otherwise indicated.
01 Also light truck driver.
11 Armed with pistol automatic caliber .45.
12 Armed with launcher grenade 40MM and pistol automatic caliber .45.
40 Also radio telephone operator.

Figure 2-3. Type base defense force attack platoon.

primary sections—the command section, and the plans and operations section—and additional sections as deemed necessary. The BDOC may be organized as follows:

(1) The command section, which provides inspection, supervision, and comand control of base defense forces and of the other sections of the BDOC.

(2) The plans and operations section, which concerns itself primarily with the tasks outlined in 3*a* above and insures maximum coordination of effort among units and elements involved in base defense and related matters.

(3) The administration and logistics section, which provides services and support to the other sections of the BDOC.

(4) The base damage control section, which provides inspection, supervision, planning, and control of base damage control resources.

2-4. Assigned Defense Force

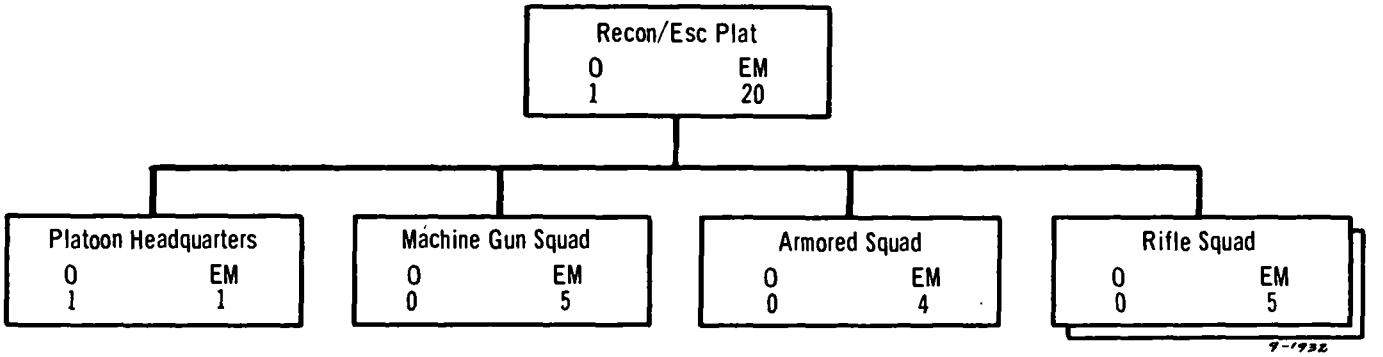
a. An assigned defense force is a table of organization and equipment (TOE) tactical unit organized, equipped, and trained for the specific and sole mission of providing defense for a base located in a stability operations environment.

b. Organizations designed specifically for accomplishment of base defense missions are not currently a part of the force structures. Internal and physical security requirements for both forward and rear area bases are met by base units and armed forces police elements. However, in stability operations, where the threats of perimeter penetration by infiltrators or of standoff mortar/artillery/rocket attack predominate, additional full-time provisional defense forces drawn from base tenant units, are essential. Determination of the strength and equipment requirements of a

MISSION. To provide security and perform reconnaissance for the base defense force and to engage in offensive, defensive, and delay action.

CAPABILITIES. A. Performs reconnaissance and provides light armored escort.
B. Engages in offensive, defensive, or delaying action.
C. Conducts independent action against lightly armed guerrilla elements.

MOBILITY. One hundred percent mobile from unit resources.



Duty Position	FS	RMK
Platoon Leader	1	
Platoon SGT	1	

Equipment	FS
Trk Util 1/4-Ton 4×4	1
Radio Set AN/GRC-125	1

Duty Position	FS	RMK
Squad Leader	1	12
Machine Gunner	2	11
Asst Mach Gunner	2	11

Equipment	FS
Radio Set AN/PRR-9	1
Launcher Grenade 40MM	1
Machine Gun Lt Flex	2
Truck CGO 3/4-Ton 4×4	1

Duty Position	FS	RMK
Squad Leader	1	12
ACRV Driver	1	13
Rifleman	2	

Equipment	FS
Carrier Comd & Recon Armored	1
Radio Set AN/VRC-53	1
Submachine Gun Cal .45	1

Duty Position	FS	RMK
Squad Leader	1	
Grenadier	1	12
Rifleman	3	

Equipment	FS
Radio Set AN/PRR-9	1
Launcher Grenade 40MM	1
Truck CGO 3/4-Ton 4×4	1

REMARKS
All personnel armed with 5.56MM rifle unless otherwise indicated.
11 Armed with pistol automatic caliber .45.
12 Armed with launcher grenade 40MM and pistol automatic caliber .45.
13 Armed with submachine gun and pistol automatic caliber .45.

Figure 2-4. Type base defense force reconnaissance/escort platoon.

base defense force can be reached only after careful consideration of—

(1) The size and configuration of area to be defended.

(2) The overall length of base perimeter.

(3) The type and the degree of enemy threat.

(4) The vulnerability and the criticality of base resources.

(5) The armed forces external to the base.

c. The assigned defense force must be sufficiently flexible to conduct static perimeter defense, internal base security, and external base defense operations. Elements of the organization must be suited for foot or motorized patrols within and beyond the base perimeter. Figures 2-2 through 2-6 are examples of type BDF elements, their missions and organization. Modifications are made by the base commander or base defense force commander as deemed appropriate to suit the needs of the base or Service. The essential characteristics of the assigned defense force are maximum small arms, close-support firepower, mobility, and good span of control. It should be capable of—

(1) Conducting reconnaissance patrols for detecting and reporting the location, strength, and capabilities of the enemy.

(2) Developing positions in its assigned defense areas from which enemy advances would be stopped, destroyed, or repelled through executing a coordinated fire plan and applying the full force of its firepower.

(3) Using elements in reserve to provide a reaction capability to conduct attacks against relatively small enemy units and to block and/or repel an enemy that threatens or penetrates the base perimeter.

(4) Providing internal security for priority elements when so assigned.

2-5. Provisional Defense Force

a. The mission, characteristics, and capabilities of the provisional defense force (PDF) are almost identical with those of an assigned defense force as discussed in paragraph 2-4. Development of a provisional defense force results in several undesirable conditions:

(1) Reduction of operational effectiveness of units from which resources are drawn.

(2) Employment of personnel in duties other than those for which specifically trained.

(3) Problems in communicating in those instances where the force includes personnel of multilingual tenant units. The base commander determines the degree of risk involved and its acceptability in relation to the requirement for the continuous operation of base facilities.

b. Personnel assignments to the PDF from support organizations are made by the commander of the support unit, who is responsible to the base commander for providing effective elements required for the base defense effort. In order to facilitate training, provide for continuity of defense operations, and insure force efficiency, assignments remain as stable as operations will permit. Extreme caution is taken in the employment of these personnel at night until their training in tactics, weapons, and communications and their familiarity with the local area have been adequately demonstrated.

2-6. Emergency Augmentation Force

a. In general, the BDF provides the personnel resources necessary to maintain the normal day-to-day defense posture required in stability operations. Emergency defense operations are an extension or expansion of normal defense operations and are implemented on occurrence of, or in anticipation of, enemy action that threatens the base or its resources. To enhance the defense effort and facilitate its success, preselected, well-trained and rehearsed units are alerted and employed as augmentation to the BDF.

b. The emergency augmentation force is developed in the same manner as the PDF. The base commander tasks his tenant commanders to designate elements of their respective units for employ-

MISSION. Exercises command and control of from two to five base defense force platoons.

CAPABILITIES. A. When acting as command and control element, assumes combined capabilities of participating base defense platoons.

B. Controls platoons via wire/voice radio and maintains communications with the base defense operations center.

MOBILITY. One hundred percent mobile from sponsoring element resources.

Company Command and Control Team

O	EM
2	4

9-1932

Duty Position	Grade	FS	RMK
Commander	CPT	1	11
Exec Officer	LT	1	
Liaison SGT	E-5	1	
Wireman	E-3	1	04
Lt Vehicle Dr	E-3	2	

Nomenclature	FS	RMK
Truck Utility ¼-T 4×4	2	
Radio Set Control AN/GRA-39	1	
Radio Set AN/VRC-47	1	549
Radio Set AN/VRC-46	1	549
Radio Set AN/GRC-106	1	
Reel Equipment CE-11	1	
Switchboard SD-993/GT	1	

REMARKS

04-Also Switchboard Op

11-Armed W/Pistol auto .45

549-Mounted in different vehicles

Figure 2-5. Type base defense force company command and control team.

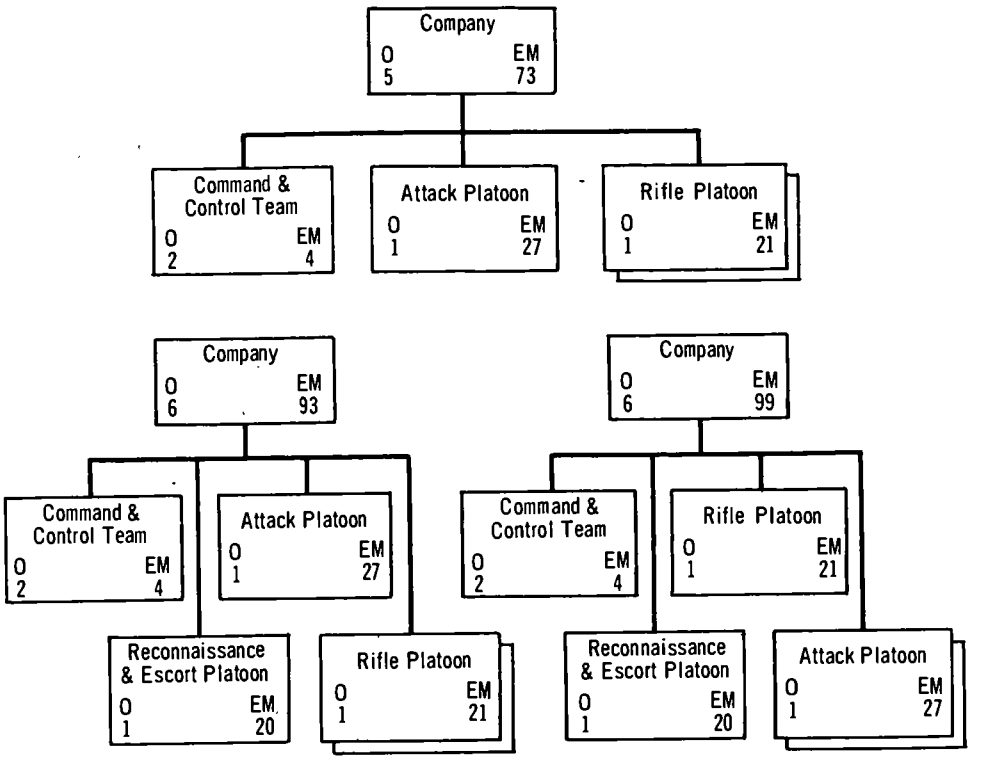


Figure 2–6. Type base defense force companies.

ment in a defense situation. These elements, designated in priority for commitment, train and rehearse to become effective in defense missions: reserve, blocking, or counterattack.

c. The base defense force commander, by the authority of the base commander, alerts and employs emergency augmentation force elements when he considers that their participation in active base defense is more important than their primary mission or due to enemy action or interference they cannot perform their primary function. In each situation, these units' value in performing their primary role in the overall base mission is weighed against their value in base defense.

d. Emergency augmentation forces are altered and employed as required by the base defense force commander during the defense. Certain elements may be alerted before an enemy assault, while others may be alerted during the attack.

e. To facilitate training and improve unit effectiveness in the base defense effort and to offset the inherent disadvantage of employing unrelated and unfamiliar groups, the integrity of units so employed must be retained; e.g., a squad, platoon, or company-size unit is provided by the designated base organization or organizations (see also fig 2–2—2–6). The units provided report to the base defense force commander with their own organic command control structure and means of mobility as required. Since these elements are not regularly organized for employment in base defense tasks, thorough planning is required to insure their possession of appropriate individual weapons, ammunition, and equipment.

2–7. Internal Security Force

a. The internal security force, as used herein, is the unit or units concerned with the physical measures to safeguard personnel; to prevent unauthorized access to facilities, equipment, materiel, and documents; and to safeguard them against espionage, sabotage, damage, and theft. These safeguards, normally practiced within the confines of the base perimeter, fall primarily within the role of physical security charged to military police and similar-type security organizations lodged in the base.

b. Internal security is only part of the overall defense of the base; therefore, internal security planning and activities must be closely coordinated with others in the base defense field.

c. FM 19–30 describes physical security operations.

2–8. Host and Third Country Forces

Host and third country forces are considered in the overall defense effort of the base, subject to their physical location and the relationship existing between commanders concerned. A combined or coordinated base defense effort is dependent on the influence and persuasive capabilities of the U.S. base commander. Coordination and cooperation are frequently the only types of command relationship existing in stability operations where there is no control organization such as the United Nations or a special treaty organization. Host country forces may consist of regular armed forces, paramilitary forces, police, and irregular forces. Third country military forces may provide assistance to the host country.

a. Host Country Regular Armed Forces.

(1) Regular army forces, composed of standard and specially trained units such as ranger, airmobile, and airborne units with limited capabilities, may make up the largest contingent of readily available host country troops.

(2) Air forces may be able to conduct close air support, helicopter operations, tactical airlift, visual reconnaissance, radio relay, and air target acquisition and to provide liaison elements for forward air control.

(3) Naval forces, which may include naval infantry or marines, can operate in inland waterways, riverine areas, or in coastal areas. These forces may include sea forces charged with both maintaining offshore infiltration surveillance and providing naval gunfire support, coastal forces patrolling inshore coastal waterways, and river forces for inland waterway operations.

b. Paramilitary Forces. Paramilitary forces may be organized like regular armed forces. They are frequently composed of indigenous armed volunteers who are as familiar with the people and terrain as are the enemy paramilitary or local militia forces. Their primary mission is to relieve the regular armed forces of security missions and local defense in a political subdivision such as a province or district. These units are armed with individual weapons, light machineguns, and light mortars. Communication equipment may be limited. Paramilitary units from squad through battalion may be trained to perform limited tactical missions. They often enforce the law and maintain public order and security in rural areas. In their security roles, paramilitary units conduct raids and ambushes, either alone or with irregular armed forces. They may reinforce security posts under attack or pursue withdrawing enemy elements. Other typical tasks are defending towns and guarding bridges, key installations, and local airstrips.

c. Police Forces. Police forces, consisting of local, regional, and national security elements, are normally the host country's primary populace and resources control forces. They are oriented on the population and may be the only effective host country force in a given locale. Police forces ferret out enemy underground elements and should be able to provide intelligence. They also secure key governmental installations and public facilities, and preserve law and order. In areas where police forces are inadequate in numbers and training, regular armed and paramilitary forces may of necessity perform certain police-type functions.

d. Irregular Forces. Irregular forces, or armed groups of individuals who are not members of regular armed forces or paramilitary forces, may be mobilized, trained, and armed to supplement the regular military, paramilitary, and police forces.

Section II. BASE CONFIGURATION

2–9. General

Bases are organized for defense in accordance with specific guidance of the area commander. Generally, a perimeter defense system is established surrounding a central secure area for all isolated bases/installations or groups of bases/installations. Collocations and mutual support provide maximum advantage. The base defense area is organized into three principal zones: the base, the forward defense area (FDA), and the reconnaissance and surveillance area (RSA). The perimeter areas, including the base, are divided into sectors; each sector has preselected landing zones (LZ) and artillery concentrations for use in an attack. Figures 2–7 through 2–9 portray the perimeter defense system concept and variations.

a. Base. The center is the base or secure area, which is normally surrounded by a barrier system

with an irregular trace. The base proper contains critical elements, such as aircraft, maintenance shops, supply and storage areas, communication facilities, billeting areas, and command posts. All personnel in the base contribute to the overall internal security effort.

b. FDA. Extending from the base, to the range of the enemy's most common indirect fire weapon, is an FDA within which available forces from the base conduct aggressive patrols, and within which other tactical units may operate to eliminate enemy threats. Operations in the FDA prevent small units and individuals from raiding, prevent the enemy from delivering mortar or recoilless rifle fire into the base, and prevent enemy reconnaissance of the base and its resources.

c. RSA. The RSA extends far enough from the FDA to permit use of reconnaissance and surveillance means to allow target acquisition, warning of enemy movement, and space wherein mobile tactical forces operate to prevent the enemy from assembling, preparing launch or firing sites, and establishing support sites for attack on the base. Generally, the RSA extends to the range of any probable enemy indirect fire weapon threat, or the distance guerrilla units can move to the base,

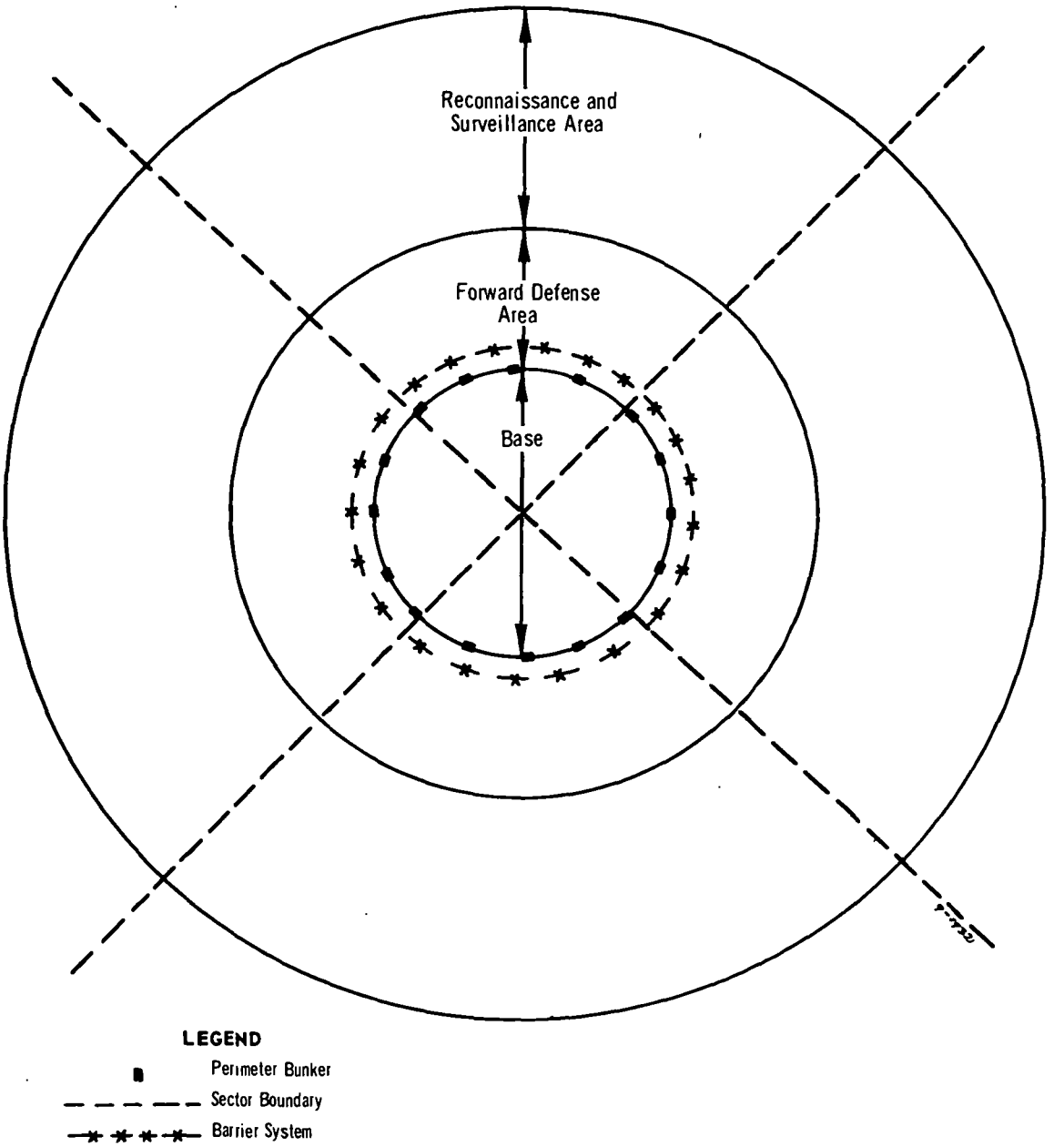


Figure 2-7. Perimeter defense system.

attack, and return during the hours of darkness. The forces operating in the RSA are under the control of the area commander. Forces operating in the RSA may include host and other friendly country air and ground elements as well as those of U.S. Services.

2-10. Area Depth

Depth of these areas depends on the base defense means available, the size of the inner base area, the terrain, the proximity of populated areas, and the enemy threat, primarily the range of enemy weapons and the capability of the enemy to mount ground attacks against the base. No precise distance is specified because the threat varies with base location and stage of conflict.

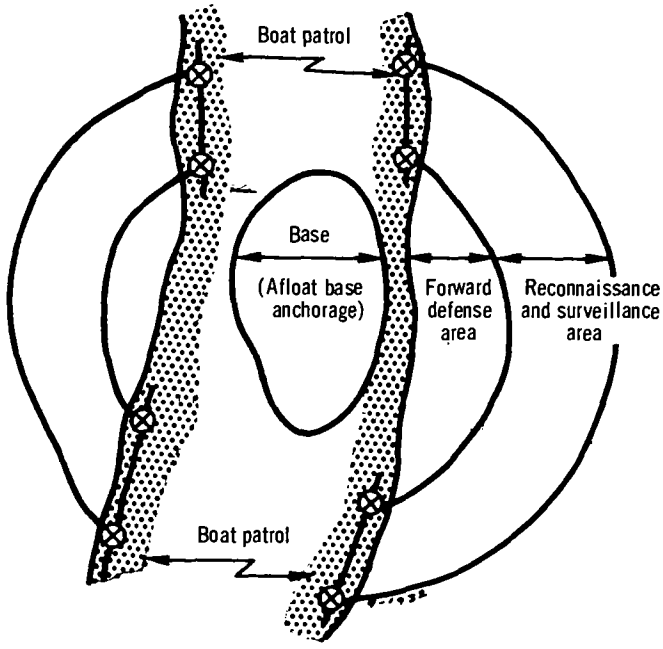


Figure 2-8. Perimeter defense system for a riverine afloat base.

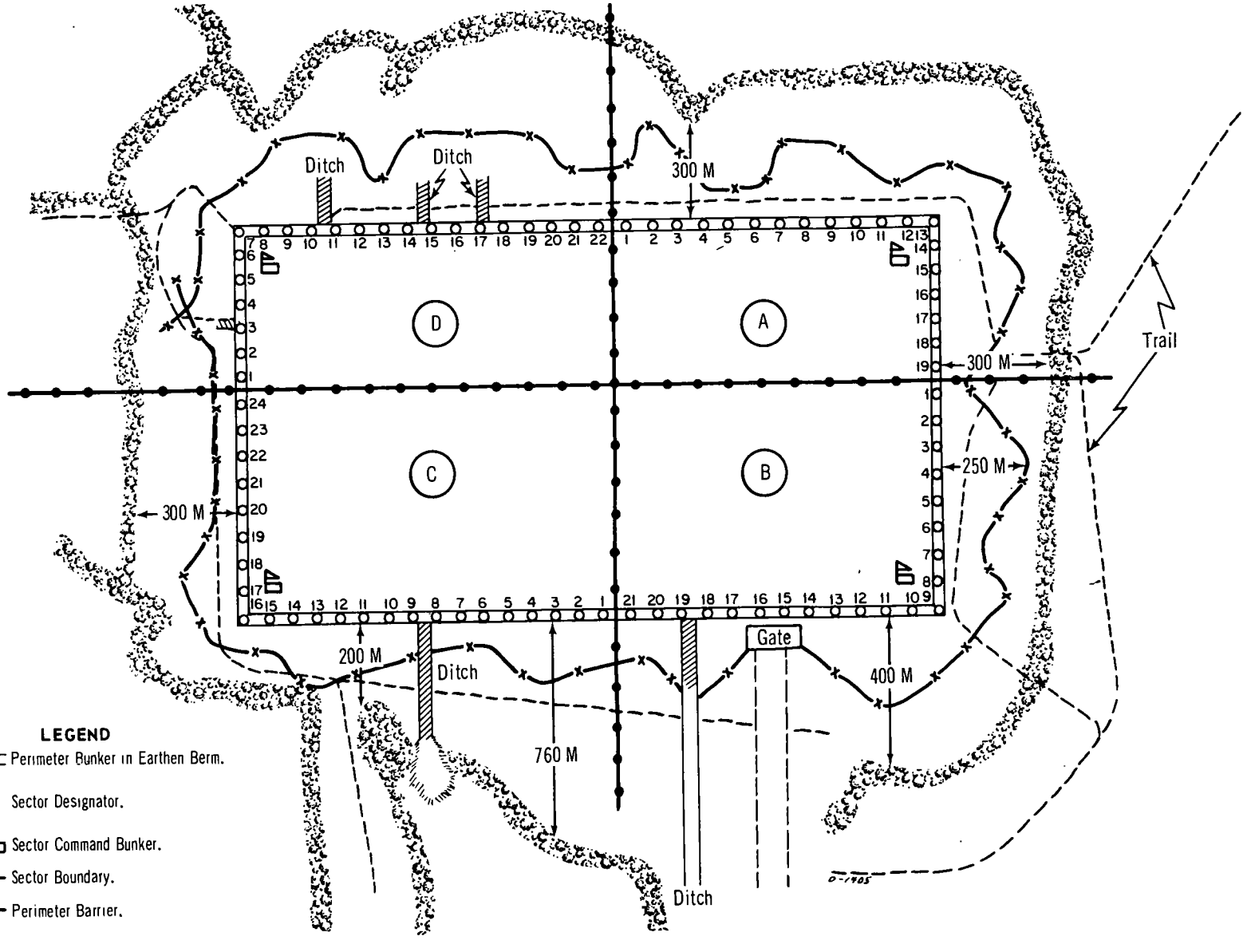


Figure 2–9. Variation of perimeter defense system.

Section III. DEFENSE FORCE ORGANIZATION

2-11. General

The organization of the BDF is influenced by the size of the base, the means available for defense, the terrain, and the enemy threat. The forces employed in base defense can be considered under two principal categories: sector forces and reserve/reaction forces. In addition, when the situation demands and the base commander delegates the authority, internal security forces function directly under the control of the base defense force commander. General support units and a logistic element may also be formed to assist the BDF. The need for decentralization of execution and flexibility is emphasized in base defense because the BDF's occupation of a single defense position with all units in close contact is frequently impossible or unsound. Base defense training and exercises must be emphasized because the organization of the BDF includes elements from diverse units with varied degrees of tactical training.

2-12. Sector Forces

Sector forces are allocated and organized to provide for command control; manning of outposts, listening posts, and defense positions; and conduct of patrols.

a. Sector Commands. The requirements for flexibility and decentralized execution in operations are met by designating sector commands. Figure 2-5 depicts a type element suitable for sector command and control. Further decentralization can be provided by designating subsector commands, which, in turn, may be subdivided into unit defense area commands. In designating sectors, subsectors, or unit defense area commands, the following are considerations:

(1) Key terrain features and the responsibility for defense of these features are not divided by sector boundaries.

(2) Defensive positions within each sector are selected with respect both to the sector itself and to the overall defense plan.

(3) The defense of remote ground locations, to include outlying islands, is accomplished either by assigning responsibility for them to the main base area or by designating them as separate sectors. Combat support and combat service support are planned accordingly.

(4) Combat operations may dictate alteration of assigned sectors to permit the base defense force to perform its mission better. Alternative sector arrangements and contingent plans are prepared in advance.

b. Sector Organization. After the base defense force commander considers the means available and compares the tactical importance, size, and defensible characteristics of each area, he assigns troops and weapons. He assigns combat support to each sector when he has determined the requirements to support the BDF as a whole most effectively. The base defense force commander may position within sectors, units, such as artillery or aviation elements, that are not under the operational control of the sector commander. Under these conditions, the sector commander coordinates the local security of all such units.

(1) In organizing the defense of a sector, the sector commander is guided by instructions from the base defense force commander, which normally include—

(*a*) Defense positions to be organized within the sector.

(*b*) Conditions for occupation of these positions.

(*c*) General courses of action to follow in the sector; e.g., delaying action, area defense, patrolling.

(*d*) Coordination with other sectors and forces.

(2) Within the framework of the base defense force commander's instructions, the sector commander may select additional tactical localities to strengthen his defense, to permit successful delaying tactics, or to support the sector reserve in counterattack.

(3) The designation of subsectors includes the assignment of appropriate forces from the sector or BDF. The character of the subsectors varies depending on the size of the sector itself, the nature of the terrain within the sector, and the size and composition of the force assigned to the sector command.

(4) When further decentralization is appropriate, defense areas are designated. Defense area designations are based on the defense of a particular tactical locality, such as a landing or drop zone or a beach area suitable to the assigned unit's size.

2-13. Reserve Forces

a. To provide flexibility of the base defense, the BDF commander designates a force for reserve. The primary mission of the reserve is to provide depth to the defense and block likely avenues of approach. When necessary, the reserve launches counterattacks to block and destroy enemy penetrations and restore the perimeter. In addition to the above, the reserve may be assigned any or all of the following missions:

(1) Conduct reconnaissance and surveillance within the base, the forward defense area (FDA), or the reconnaissance and surveillance area (RSA).

(2) Provide outpost forces.

(3) Conduct ambush patrols.

(4) Augment internal security forces.

b. The reserve is, preferably, a balanced striking force organized and equipped to exploit mobility and flexibility through the use of all transportation available including helicopters. A consideration of both the requirements for defense against attack by enemy ground, airborne, or waterborne forces and the protection afforded by dispersal and shelter to reduce its vulnerability to bombardment, determines the reserve's location. The reserve normally is fragmented and elements are deployed in dispersed and concealed sector assembly areas. The use of dispersed areas for the reserve does not preclude its employment as a whole. However, the dispersal of the reserve in sector areas demands detailed plans for its swift assembly and coordinated employment. When plans are complete, the reserve rehearses to improve its proficiency in movement, coordination, and attack. Night training and night rehearsals are necessary because, under stability operations conditions, the enemy is most likely to launch an attack during the hours of darkness or reduced visibility.

c. Either in addition to or in the absence of a balanced BDF reserve, each sector commander designates a sector reserve which he may commit in situations short of requiring commitment of the BDF reserve. When not engaged, these sector reserve forces may be committed by the BDF commander in reaction to a threat outside of their assigned sectors. This method of designating a reserve is effective for small bases or restricted localities, wherein the enemy capabilities require dispersal of the bulk of the BDF around the base perimeter. Large bases where the terrain permits great maneuverability, require a balanced reserve.

CHAPTER 3
BASE DEFENSE SUPPORT

Section I. COMBAT SUPPORT

3-1. General

a. Combat support is the operational assistance furnished to the base defense force by other units.

b. The combat support means required to facilitate base defense, if not organic to base units, are requested through established support channels, or command channels.

c. The combat support provided by aviation, air defense, artillery, engineer, and intelligence units may be required in conducting base defense.

3-2. Fire Support

a. Firepower is one of the principal elements of combat power in or available to a military base. It is composed of all fires under the direct control of the commander as well as those supporting fires that are available to him. The primary function of fire support units is to provide timely support to neutralize or destroy those targets most likely to hinder the base mission. Fire support that may be provided the base consists of artillery, close air support, armed helicopters, air defense artillery, and, when feasible, naval gunfire.

b. The base fire support coordinator is responsible for preparation of the fire support plan based on the commander's concept and established policies. He coordinates all fire support. FM 6-20-1, FM 6-20-2, FM 61-100, and FM 101-5 discuss fire support coordination in detail.

c. The lowest fire support echelon possessing the means to meet the needs of the requester responds to the request for fire support. Requests for each type of fire support are submitted through operational channels, where established; otherwise through command channels.

3-3. Army Aviation

a. Army aviation augments the base defense force's capability for conducting day/night visual observation, reconnaissance, and surveillance; command and control; liaison; adjusting fires; laying wire; and providing illumination. It also performs limited resupply, evacuation, and aerial fire support missions. Armed rotary-wing aircraft on ground alert provide fire support. The light observation helicopter can provide both day and night reconnaissance and surveillance support. Additionally, they afford a rapid and responsive means for movement of reaction forces to counter a threat or attack, or for insertion or extraction of defense force elements conducting patrol operations. When sufficient aircraft are available, continuous night patrols by aerial field artillery may be used as a deterrent and immediate reaction to enemy attacks by infiltration, mortar, or rocket. FM 1-110 provides information on roles for armed helicopters.

b. Not all bases or units require the support of Army aviation on a continuing basis. To support these units when required and to augment the organic aviation assets of division and other Army units, separate aviation organizations are located within the theater. These aviation units are normally assigned to field army with further attachment to subordinate corps.

c. Base requests for Army aviation support are submitted to the next higher headquarters through operational channels or command channels.

3-4. Air Support

a. Air support elements perform conventional missions of air reconnaissance and surveillance, interdiction in support of base defense operations, and resupply, as required. Air support elements also provide close air support to defeat large attacking groups. Additionally, air support elements perform air commando activities, provide spot illumination, and disseminate defoliants.

b. Close air support (CAS) may be provided by U.S. Air Force, U.S. Navy, U.S. Marine Corps, and/or host country units. CAS is effective in supporting the defense force in neutralizing enemy efforts to attack or harass base forces engaged in installing the barrier system. CAS may be utilized to engage large targets in support of base offensive or reaction force operations; however, CAS is normally not employed against fleeting targets.

c. Requests for air support by the base defense force are submitted through channels to the direct air support center (DASC) located at corps. The DASC is responsible for disseminating the allocation of tactical air support.

3–5. Air Defense Support

a. The mission of air defense artillery (ADA) elements is to destroy hostile airborne aircraft and missiles or to nullify or reduce their effectiveness. The field army commander is normally responsible for air defense of the field army forces.

b. In stability operations, where the enemy has a few or no aircraft or missiles in his arsenal, attention focuses on the employment of ADA automatic weapons in the ground support role to supplement the firepower of the base defense force. ADA weapons assigned a ground role must be capable of rapidly reverting to an air defense posture should the air threat escalate suddenly. The automatic weapons of primary interest include—

(1) The M42, self-propelled, twin 40-mm forward area weapon (DUSTER).

(2) The M55, multiple caliber .50 machine-gun (quad. 50).

(3) The M61A1, Vulcan. An automatic, six-barrel weapon, which operates on the Gatling gun principle, and fires up to 3,000 rounds of 20-mm ammunition per minute.

c. The base commander considers the following ADA missile systems in the air defense of the base:

(1) The Chaparral—an infrared, heat-seeking, low altitude missile system consisting of a missile launcher and mount. This missile automatically seeks the target's heat source after firing.

(2) The Redeye—an infrared, heat-seeking, shoulder-fired guided missile—protects against low-flying enemy aircraft.

(3) High and medium altitude air defense protection provided from other sources.

d. The base commander may be assigned responsibility for low and medium altitude air defense of the base. If so, the base air defense officer is responsible for control and operational employment of organic and attached air defense means, subject to the rules of engagement and procedures for the area of operations. He coordinates the employment of any additional air defense means supporting the base. If no air defense representative is available, the base operations officer coordinates these matters.

e. FM's 44–1, 44–2, 44–3, 44–5, and 44–96 provide additional details on ADA employment.

3–6. Artillery Support

a. Responsive, rapid fire support is required for base defense operations. Artillery and mortar fire support provide responsive reaction to the infiltration and standoff attack threats in minimum time. If in range, naval gunfire is used the same as artillery fire. In base defense operations, base-positioned fire support units follow normal fire support procedures. Fire support units positioned outside the base area, but within support range, are considered and included in the overall base defense fire support plan. Also included are the fire support capabilities of host country and third country forces.

b. Artillery's mission in base defense is—

(1) To support all phases of the defense by fire.

(2) To develop and execute a carefully prepared fire support plan against acquired, predicted, or interdiction targets to destroy enemy forces and to prevent assembly and free movement of enemy elements.

(3) To plan and conduct a counter mortar/rocket program.

(4) To conduct counterpreparation fires to disrupt enemy preparations for an attack.

(5) To support counterattacks to destroy to expel the enemy force.

(6) To support the target acquisition portion of the defense by employment of available countermortar radar, searchlight, and observer sections.

c. Field artillery support is requested by the fire support coordinator through established fire support channels.

3-7. Aerial Field Artillery

a. Aerial field artillery (AFA) provides air fire support and antitank defense fires in the base area. It may be assigned tactical missions of direct support, reinforcing, general support, and general support-reinforcing. AFA is particularly suited for counter mortar/rocket continuous night patrols.

b. AFA helicopters engage either preselected targets or targets of opportunity. Acquisition and designation of targets of opportunity may come from various sources, to include AFA pilots (in preplanned areas). Preferably, the forward observers of direct support artillery units provide mission control to aerial field artillery units delivering fires on targets of opportunity. The weapon systems of the AFA helicopters are effective against personnel, light fortifications, and tanks.

c. The fire support coordinator requests and coordinates the employment of AFA fire support.

3-8. Auxiliary Firepower Means

a. When required to provide additional artillery type fire support, auxiliary weapons supplement the fires of the field artillery units. The loss of artillery units in combat, the support of widely separated units and/or the immediate requirement for increased artillery fire support dictate the use of other available fire support means in the artillery role.

b. The fires of organic units with auxiliary weapons capable of employment as artillery may supplement the fires of the supporting field artillery when the appropriate commander so directs. For maximum effective employment in a field artillery role, units with such weapons should be capable of employing massed fire techniques and should be joined to field artillery by survey, liaison, and communications. Examples of units with auxiliary weapons suitable for use in the field artillery role are—

(1) Tank units. (Tank guns are only used in the artillery role in a specialized situation. The heavy mortar platoon of the tank battalion, when in the base, is routinely employed in base defense. (See FM 6-40.)

(2) Miscellaneous weapons. (Captured and replacement guns, tanks, etc.)

(3) Amphibious howitzer units.

(4) Armed watercraft of riverine forces.

(5) Air defense artillery when used in a ground role.

c. The employment of auxiliary weapons as field artillery is facilitated by assigning the unit a mission of reinforcing an organic artillery unit that has the means readily available for assisting the reinforcing unit. ADA units having had dual training may also be assigned general support missions.

d. The commander of the reinforced artillery unit is responsible for coordinating and employing all available resources of both the reinforced and the reinforcing unit to enable the reinforcing unit to accomplish its mission in the auxiliary role.

3-9. Naval Support

a. U.S. Navy elements can establish costal patrols, sea barriers, and blockades and provide naval gunfire support in areas adjacent to the coast. Naval elements also can patrol inland waterways and operate in conjunction with ground forces in riverine areas. Close coordination and liaison aid in maintaining an interchange of useful intelligence information. Naval gunfire support is of primary concern to a base defense force commander in a coastal area or adjacent to a deep draft waterway. Naval gunfire has limited range inland. Destroyers or smaller inshore fire support ships may provide support from the principal rivers during seasonal floods or peak tides. Naval gunfire procedures are not altered in base defense operations, but they do require maximum liaison and control measures.

b. The duties of naval gunfire personnel are essentially the same at all levels. Naval gunfire liaison personnel may serve as members of the fire support element of the base defense operations center when naval gunfire is used in direct support of base defense operations. Their duties include planning, providing information regarding gunfire support limitations and capabilities, coordinating with other supporting arms, and supervising naval gunfire support.

c. Naval gunfire is normally observed by a naval gunfire spot team from within an assigned shore fire control party which includes a naval gunfire liaison officer; but forward air controllers or artillery observers can be used. An observer communicates directly with a direct support ship on a shore fire control spotting net to request and adjust the ship's fires. The naval gunfire liaison officer monitors this net for the fire support coordinator of the base defense force who coordinates all fire support activities, as required, in accordance with current doctrine.

3–10. Engineer Support

a. The initial construction effort for a base defense system requires detailed planning and takes considerable time. Engineer effort consists of supervision and assistance in the installation of buried sensors and warning devices, land clearing for line-of-sight detection equipment, preparation of communication trenches, and erection of fences and wire and tape barriers. Additionally, the construction and labor effort applies to the preparation and maintenance of roads, aircraft landing strips, observation towers, bunkers, strongpoints, and revetments.

b. Construction of a base defense system is sequential. The base defense force commander coordinates all construction requirements with the base engineer commander. While special engineer construction units may assist in many of the construction tasks, troop units and members of the base defense force accomplish much of the construction. When conditions permit, civilian contractors—either U.S., indigenous, or third country —are employed to conserve the resources of military construction units and manpower. Maximum use is made of local labor and materiel resources, when available. The use of other than U.S. military personnel for the construction effort increases the vulnerability of the base and its resources to direct enemy observation and possible sabotage if rigid personnel controls are not implemented. FM 5–15 provides details pertinent to field fortifications while other field and technical manuals of the 5-series provide details on other construction tasks.

c. Installation of a barrier around the base perimeter reduces the threat of enemy infiltration or perimeter penetration. Multiple barbed wire and barbed-tape obstacles in various standard and improvised forms are the principal components of the barrier system. Defoliation outside the perimeter increases the efficiency of the barrier system. Barbed wire/tape or barbed wire concertina fences also deny access to vital or sensitive areas within the base. The use of irregular layouts of obstacles and barriers and the placement of phony obstacles tends to confuse the enemy and deny him the use of the barrier trace as a valid reference point. The base commander insures the accomplishment of the construction of the barrier system. Chapter 4 provides additional details regarding barriers.

3–11. Intelligence Support

a. Intelligence agencies of higher echelons supplement the base's intelligence capabilities. FM 30–5 and other appropriate field manuals prescribe detailed intelligence procedures.

b. The primary intelligence support that may be provided to the base commander on a continuous or an as-required basis includes reconnaissance, surveillance, target acquisition, and counterintelligence.

(1) Reconnaissance, both ground and air, provides information on the enemy, weather and terrain, and local populace activities. Aggressive ground reconnaissance is a positive means of determining the disposition and identification of enemy forces. Air reconnaissance is coordinated with ground reconnaissance and is continuous to the extent permitted by resources. Army aviation supports and reinforces ground reconnaissance, and extends the range of ground reconnaissance elements by providing them with air transportation to their starting point and picking them up at prearranged locations. The capabilities of air reconnaissance elements of the Air Force, Navy, and Marine Corps complement those of Army aviation. FM 1–5, FM 1–15, FM 30–20, and FM 61–100 contain detailed procedures for the employment of Army aviation air reconnaissance and surveillance aircraft. Requests for air reconnaissance support are processed by the base intelligence officer and follow the same requesting procedures and channels as for close air support and armed helicopter support.

(2) Surveillance is the all-weather, day and night, systematic observation of the area surrounding the base used to provide timely information of enemy activities. Because continuous surveillance of the entire base area would require extensive air and ground surveillance resources, it is only accomplished when justified by the intensity of the enemy threat. Ground surveillance is characterized by generally severe line-of-sight limitations, but, nevertheless, is essential to all-weather day and night surveillance of the base area. Air surveillance complements ground surveillance and to a great extent overcomes the limitations of ground surveillance.

(3) Target acquisition is that part of intelligence activity that pertains to the detection, identification, and location of a ground target in sufficient detail to permit effective employment of weapons. In base defense operations, target acquisition is normally accomplished by the base defense force and the supporting reconnaissance and

surveillance elements. Specifically organized and equipped target acquisition artillery units are available from corps resources.

(4) Effective counterintelligence increases the security of the base by denying information to the enemy. Defensive measures may be active or passive.

(*a*) Active defensive measures block the enemy's attempts to gain information, to engage in sabotage, or to conduct subversion. Active defensive measures include counterreconnaissance, countersubversion, and counterespionage.

(*b*) Passive defensive measures conceal information from the enemy. These measures include local security, security discipline, security of classified documents and material, communications security, concealment and camouflage, censorship, and control of civil populations. Defensive counterintelligence measures employed with the support of specialized agencies include electronic countermeasures and civil security measures.

(*c*) Counterintelligence special operations, formally conducted and controlled by higher headquarters, include offensive measures directed against hostile espionage, sabotage, and subversive efforts. The effective execution of both active and passive measures requires close liaison and well-coordinated effort with local civilian and military forces. Counterintelligence personnel are not normally organic to base units and must be requested from corps, by the intelligence officer, as required.

c. All base units are potential information collecting agencies. However, those units that come close to or in contact with enemy forces are the principal contributing agencies.

d. Information of enemy bombing, shelling, or mortaring activity is reported to the BDOC by the fastest means available. FM 30–5 provides a standardized report format.

Section II. COMBAT SERVICE SUPPORT

3–12. General

a. Combat service support is the assistance provided base defense forces primarily in the fields of military police, transportation, chemical, civil-military operations, maintenance, and supply services.

b. Normally, the combat service support units of a base are capable of supporting all base tenant units. The introduction of new units to the base, with types of equipment not organic to the regular base units, may necessitate supplementing the base combat service support capability. Supplemental units are requested through established or command channels.

3–13. Military Police Support

a. The military police element maintains discipline, law and order in the base.

b. The provost marshal supervises the military police element and coordinates the activities of all attached and supporting military police units. The military police functions normally include—

(1) Providing security for sensitive or critical installations or resources of the base.

(2) Operating a prisoner collecting point, a straggler control collecting point, a civilian internee collecting point, and a temporary confinement facility for military prisoners.

(3) Supporting traffic control and traffic regulation plans with direction, enforcement, accident investigation and prevention, and highway traffic security measures to include route security and in transit security support.

(4) Assisting in execution of base damage control plans.

(5) Executing traditional physical security measures (FM 19–30).

c. In stability operations, where recognition between friend and enemy is difficult at best, physical security activities require added emphasis to insure continuous operation of the base. Emphasized physical security measures include—

(1) Screening and searching civilian personnel—indigenous, U.S., or others—on entering and exiting the base.

(2) Searching all U.S. vehicles entering or leaving the base transporting personnel other than U.S. military personnel.

(3) Searching all non-U.S. vehicles, both civilian and military, entering or leaving the base.

(4) Assisting host country military, paramilitary, and police units in the execution of populace and resources control measures.

(5) Integrating sentry dog patrols and base defense force operations both inside and outside the base perimeter.

(6) Implementing package and material control measures to preclude entry of camouflaged explosives or incendiaries, and unauthorized exit of items for sale, trade, or personal use.

(7) Operating in conjunction with host country military and civilian police in the execution of traffic control, base entry/egress control, and house or village search operations.

(8) Participating in community relations projects. Of particular importance are daily visits to projects in each village within the FDA.

(9) Implementing a control and visual identification system for indigenous labor. A laborer exchanges his identification card for a colored badge when he enters the base. He displays this badge on his outer garment while he remains on base and exchanges it for his identification card when he departs the base. The color of the badge denotes the area or facility that the laborer has authorization to enter.

d. The provost marshal is responsible for insuring that all military police activities, particularly physical security actions, are integrated in the overall base defense plan to prevent duplication of effort.

e. The provost marshal coordinates with the civil-military operations officer in all matters involving host country military police forces or civilian law enforcement agencies.

f. Military police units are provided by the area commander when extensive requirements exist for physical security.

3–14. Transportation Support

Mobility is essential to base defense operations. The base defense force may have a limited quantity of wheeled vehicles as its only organic transportation; therefore, it depends on other units for vehicular support to accomplish its mission.

a. The base defense force commander, after detailed analysis of the force mission, determines the minimum transportation requirements essential to accomplish the mission and so informs the base commander. The transportation support necessary normally consists of aircraft, armored personnel carriers (APC), and wheel vehicles. Tasks of the defense force requiring such support include—

(1) Insertion, resupply, and extraction of patrols.

(2) Deployment of reaction forces.

(3) Reconnaissance and surveillance.

(4) Evacuation of wounded.

b. The base commander evaluates the transportation support requirements; compares them with the overall base mission requirements; and, when necessary, establishes priorities for allocating available support means.

c. Normally, transportation means are neither assigned nor attached to the defense force. The base commander, through the base operations officer, designates the base unit or units to provide the support on either a scheduled or an on-call basis. Requirements for vehicular support, beyond the capabilities of base units, are made known to the next higher headquarters.

3–15. Chemical Support

a. Authority for the base to use chemical weapons is received through command channels. The base chemical officer, or the chemical officer assigned to the base damage control section, is available to advise on the judicious employment of screening and signaling smoke, riot control agents, herbicides, and flame weapons to include field expedients.

b. The BDF can—

(1) Employ screening, signaling smokes. Consideration should be given to the use of smoke screens for the afloat base (fig 2–8).

(2) Disseminate riot control agents, when the tactical situation permits, by means of grenade and cartridge launchers, grenades, and dispensers.

(3) Disseminate herbicides to clear vegetation by means of dispensers, hand-pump sprayers, and power-driven decontamination apparatus.

(4) Emplace flame field expedients in the barrier system and employ flamethrowers, when required.

(5) Employ artillery and mortar units to deliver CS rounds to support the base. These units can also establish smoke screens, blind observation posts, and use smoke ammunition for signaling.

c. A partial list of chemical munitions and weapon delivery systems is presented in tabular form in FM 3–10/NWIP 36–2/AFM 355–4/FMFM 11–3.

3–16. Civil-Military Operations (CMO)

a. Base-directed CMO activities support base units' operations, secure necessary civilian assistance and support for assigned missions, and fulfill the base commander's legal obligations toward the civilian population. The base civil-military operations further the CMO objectives of higher echelons and assist in future military operations. Although CMO activities and functions are normally responsibilities of base units other than the base defense force, the base defense force participates in these activities to the maximum extent possible.

b. The base CMO officer exercises general coordinating staff supervision over CMO activities and psychological operations (PSYOP) within the base area. His primary concern is with planning, coordinating, and supervising CMO operations and monitoring civil-military relationships.

c. In stability operations, CMO activities are oriented toward separating the guerrilla from the populace and gaining the loyalty of the people for their government. This is done by fostering mutual respect, trust, and loyalty between military forces and the host government on one hand, and the population on the other. Civic action projects, psychological operations, and population and resources control measures, are some of the means used by base elements to accomplish civil-military operations objectives. FM 31–23, FM 33–1, FM 33–5, and FM 41–10 discuss these functions in detail.

d. Requests for CMO support are routed to the field army support command.

CHAPTER 4
BASE DEFENSE PLANNING AND CONDUCT OF OPERATIONS

Section I. GENERAL

4-1. Introduction

a. The basic doctrine and principles of defense apply to base defense operations. The enemy's capability to launch an attack or to attempt an infiltration when and where he chooses necessitates detailed planning, centralized control, and integration of all defensive measures to insure all-round defenses on a continuous basis, with emphasis on operation during darkness and reduced visibility.

b. Field manuals of the 7 series, FM 21-75, FM 31-16, FM 31-23, FM 31-73, FM 61-100, and FM 100-5 provide further guidance on defense and related operations.

c. An effective base defense system or organization accomplishes four related functions: detection, warning, delay, and destruction.

(1) Detection determines that an enemy attack or infiltration attempt has, will, or is taking place. This is accomplished by surveillance during all conditions of weather and light and on any terrain. The key to detection is the collection and free and rapid exchange of intelligence information. Detection efforts include troop observation, viewers, radars, emplaced sensors, and illuminating devices. Concurrent with detection is identification which is required to preclude reaction against false alarms and friendly persons. Desirable characteristics of detection components are:

(*a*) Function effectively under all conditions of weather, terrain, and light.

(*b*) Require minimum maintenance, combat service support, or accessory equipment.

(*c*) Can be quickly and easily emplaced, deployed, or concealed by nonspecialist personnel.

(*d*) Pinpoint the enemy location.

(2) Warning systems and procedures are established to disseminate notification of enemy attack. Upon initial notification of hostile action, an alarm is sounded by using devices such as sirens, metal triangles, and klaxons. The base defense force radio net is opened and sector commanders enter the net by contacting the base defense operation center net control station (BDOC-NCS). In the event of loss of radio contact, each station conducts immediate actions to locate the cause of failure. Radio, wire, and messenger services are used to their best advantage to insure adequate communications. The warning systems and procedures established are rehearsed to ensure their adequacy and to enhance their efficiency.

(3) The defense system provides sufficient hindrance to the attacker's progress after detection and warning to permit base forces to react. Delay is accomplished by employing mines, booby-traps, wire, flame, and riot control agents. The delay system contributes to the effectiveness of the overall defense efforts as follows:

(*a*) Provides an obstacle that delays the movement of an enemy across an area under surveillance and then provides time for firepower to be brought to bear or for reaction forces to engage and destroy them.

(*b*) Can make the enemy commit acts that enhance the effectiveness of detection equipment.

(*c*) Can require infiltrators to leave evidence of their presence.

(*d*) May canalize intruders into ambush points.

(4) The base defense organization must have the capability, in addition to detection and delay, to neutralize the attack or infiltration attempt. This neutralization is accomplished by killing, capturing, or repelling the enemy with reactive firepower or maneuver forces or monitoring their movement with surveillance devices. The reaction force can consist of a mix of land, air, or sea forces in varying numbers and using a variety of weapons. It can be artillery fire, fire from attack helicopters, helicopterborne forces, ground forces from the base, or forces located in the area outside the base.

d. Understanding and assessment of the threat are paramount. The nature of the threat requires investigation not only in terms of the current situation, but also in terms of the potential threat. The magnitude of the threat determines the extensiveness of the defense system required. Consideration of the threat includes a survey of the attitudes of the indigenous population at or near the base. The sympathy or hostility toward the enemy in an unstable environment largely determines the magnitude of the threat. The term "threat" refers to the total resources available to the enemy and his capability to employ them. In general, the threats, the countering of which is the primary function of base defense, fall into the following four broad categories, or combinations thereof:

(1) Standoff rocket, mortar, recoilless rifle, or other artillery attack.

(2) Overt raid by relatively lightly equipped units up to battalion strength, or by specially trained sapper units.

(3) Penetration of the base for the purpose of sabotage against vital resources, intelligence gathering, or the assassination of key personnel. (This may be accomplished by one or more enemy agents entering the base under the guise of indigenous employees.)

(4) Coordinated attack by forces greater than battalion strength.

e. Installation of the base defense system requires extensive construction effort. In addition to installation of the physical barrier, the observation towers, bunkers, hardening of base facilities, and base areas require construction effort. Adequate lines of communications are necessary to support the base defense operations. Plans include the repair and maintenance requirements to provide sustained support of the defense operations.

f. Planning the base defense requires close coordination with civilian and military officials, and cooperation between adjacent units, host country units, and the base internal security forces.

4–2. Personnel

a. In developing an organization to defend the base, the minimum size force capable of accomplishing the mission is an important consideration.

b. Frequently, in addition to U.S. Service components billeted and employed in the base, there are police, paramilitary, or military forces of the host country located adjacent to, or in proximity of, the base perimeter. Through mutual agreement, personnel of these units may be available to assist in base defense activities. However, host country operations may dictate shifting the locations of these forces without advance notice, thereby exposing a portion of the perimeter to insurgent observation or attack.

c. Personnel assigned to base defense missions are qualified in their individual weapon, automatic weapons, rocket and grenade launchers, recoilless rifles, and various crew-served weapons. Additionally, they are trained in offensive tactics to include combat, reconnaissance, ambush, counterambush, and long-range patrolling activities, as well as spoiling attacks and counterattack.

Section II. RESOURCES PLANNING FACTORS

4–3. General

The base defense force commander plans the employment of all available resources and personnel to accomplish the defense mission. The available resources and personnel may include detection materiel, delay materiel, illumination means, and destruction elements such as reaction forces, indirect firepower, and helicopters and airstrikes. This section provides planning factors applicable to employment of these resources and personnel. The detection materiel considered in this section is generally discussed in generic terms. Specific operational characteristics may be found in classified or other appropriate documents. The other materiels and resources are discussed in more detail. Some of the equipment and material listed below is described briefly in the appendixes of FM 31–36 (Test), Night Operations.

4–4. Detection Materiel

a. Radars. The ground surveillance, countermortar and counterbattery, and air defense artillery (ADA) radars, are active devices subject to electronic countermeasures and detection. Radars are employed in base defense to detect enemy activities; control friendly movement; and detect enemy mortar, rocket, or artillery firing positions. Positioning of radars is changed periodically and alternate positions are prepared to neutralize enemy detection and countermeasures. Use of

available radar is coordinated for a complementary surveillance effort. Detailed characteristics and capabilities are found in appropriate field manuals and technical manuals. The ground surveillance radars search for, detect, and locate moving targets. Since the target is moving, ground clutter such as small hills or foliage, that restricts visibility normally, does not restrict surveillance. Ground surveillance radars are employed on vantage points to fully exploit their surveillance capabilities. Planners consider the following factors in employment of radars:

(1) General operational degradation due to inclement weather amounts to about 25 percent in range.

(2) Siting on elevated platforms or terrain features maximizes line of sight.

(3) Rough terrain and forest growth increase radar masking. Radar is most effective in open, smooth terrain.

(4) No extensive site construction is required for ground-mounted radars.

b. Viewers. A viewer is a device that improves man's visual capability. Viewers include the image metascope, starlight scope, infrared binocular and periscopes, crew-served weapons night vision sight, and tripod-mounted night vision sight. Planning factors to consider—

(1) Viewers in general require a light source. They are degraded operationally by inclement weather or countermeasures such as smoke.

(2) All viewers require unobstructed line of sight.

(3) Night vision aids are made temporarily inoperable by direct, bright light sources.

(4) Viewers may be employed on the ground or in aircraft.

(5) No site preparation is required.

c. Intrusion Detection Devices. The intrusion detection alarm devices, or anti-intrusion devices, are designed to *detect*, not *prevent*, an intrusion or an attempted intrusion into an area. As such, these devices are used as an adjunct to, not a substitute for, the base security and defense force. Of importance to planners is that any warning system is valueless unless it is supported by prompt guard or defense force action on activation of the alarm. Depending on effectiveness, reliability, and maintenance required, intrusion detection devices vary in degrees of acceptability. No one system is suitable or adaptable to every location and environment. The situations and conditions at the particular site to be protected determine efficient and practicable devices or systems. Intrusion detection devices transmit an immediate warning signal and operate on the basic principles of breaking an electric circuit, penetrating an electronic field, detecting sounds and vibrations, detecting motion, or interrupting a light beam. The following paragraphs present the devices and pertinent planning factors concerning each type.

(1) *Acoustic devices* such as the sound ranging set GR–8, and microphone clusters such as the AN/PSS–2.

(*a*) Area-type detection coverage of noise is provided at limited ranges.

(*b*) Vegetation varies attenuation of infiltrator noises.

(*c*) Increased probability of detection of quiet infiltrators is achieved through the use of hand-emplaced noisemaking devices.

(*d*) No site preparation is required.

(2) *Pressure devices.*

(*a*) Line-type pressure devices are effective, reliable line sensor devices.

(*b*) Extensive installation effort is required.

(*c*) Pressure devices are employed across roads, paths, trails, and other likely routes of infiltration.

(*d*) Pressure devices are not suitable for use in rocky areas or areas with pronounced slope.

(3) *Seismic devices* of types in the AN/PSR–1 category, which detect movement resulting in minute earth disturbance.

(*a*) Seismic devices can be either area- or line-type sensors.

(*b*) Line-type sensors are employed to cover segments of the barrier or to fill in where line of sight sensors are masked. Area-type sensors can be used around observation posts, strongpoints, and temporary base camps.

(*c*) Seismic sensors are useful for detecting intruder tunneling activities as well as walking personnel.

(*d*) Seismic devices cannot be efficiently employed in areas of high, natural seismic activity.

(4) *Infrared devices.*

(*a*) Detection devices using infrared sources as the influence field are line-type sensors

requiring an unobstructed optical path to detect intruder movement.

(*b*) Infrared devices are employed along roads, paths, and trails, other intruder avenues of approach, and waterways or areas that are periodically inundated.

(*c*) Fog, rain, or dust seriously limit (90 percent in some cases) source-to-receiver distance for infrared devices. During night operations, the detection capability increases 20 to 30 percent.

(5) *Magnetic devices.*

(*a*) These devices detect the presence of ferrous material at very limited distances (less than 5 meters). Magnetic sensors are best used as line-type devices.

(*b*) False alarms increase during electrical storms.

(*c*) Magnetic devices serve as backup devices to other sensors.

(6) *Mechanical devices.*

(*a*) These are line-type sensors requiring physical interaction with a detection activation device. Employment is along paths, roads, and other intruder avenues of approach.

(*b*) Units are temporarily inoperative when the wire or mechanical device is broken, but are easily reactivated.

(*c*) Inclement weather does not degrade operation.

(7) *Fences.* Exclusion fences with signs warn indigenous personnel and help to suppress the false alarms created by animals. Electrically charged fences may serve as warning devices.

d. Use of Detection Devices.

(1) Radars and viewers are used as a primary surveillance means of the area beyond the base perimeter and as a backup to sensors employed within the perimeter.

(2) Seismic, pressure, infrared, magnetic, acoustic, and mechanical sensor devices are used in conjunction with one another for necessary redundance, reduction of false-alarm rates, or to alleviate the reduced effectiveness of one type of device caused by certain terrain features.

(3) The mixing of sensors is primarily to oppose the enemy's measures to defeat a single type of sensor. As an example, the enemy can reduce his rate of movement to the degree where doppler radars fail to detect him. The slower the intruder moves, however, the greater are his chances of detection by pressure sensors. Radar operators must be alert to electronic intrusion or deception attempts. Any irregularity in equipment functions must be reported to proper supervisory or appropriate personnel. Similarly, operators must be prepared to continue operation through interference. Standing operating procedures (SOP) must be adhered to and security practices must be followed at all times.

(4) Isolated detection devices are placed at or near areas masked from line of sight for early detection of intruders as they approach the base.

e. Field of Fire Clearance. Vegetation clearing and suppression can be accomplished with dozers, by hand, by flame, or by herbicides as well as conventional demolitions. Dozers with associated attachments provide rapid and effective clearance of vegetation. Hand tools and chain saws can operate in areas where dozers cannot. Chemical defoliants suppress dense foliage thereby increasing visibility through trees. Their application is most effective during the growth cycle. They may be applied to cleared areas for control of vegetation or to areas in which plants are growing.

4–5. Delay Materiel

a. Mines (Antipersonnel, Antivehicular).

(1) Antipersonnel (AP) and antivehicular (AV) mines are used in their normal role of denying intruders access to selected areas. Self-neutralizing mines are useful in varied situations, but require reseeding at periodic intervals.

(2) AP mines along isolated perimeter sections delay intrusion and reduce enemy countermeasures to emplaced sensor devices.

(3) Mines should not be near detection sensors or their associated cables.

b. Obstacles. Wire/tape obstacles are used in conjunction with minefield traces as a means to increase delay of intruders. Barbed tape and wire barriers are made more effective by seeding with foot spikes. (See FM 5–15.)

c. Botanicals.

(1) Vegetation, as a delay device, depends on adaptability to local climate. Vegetation elements may not become effective for several years.

(2) Bamboo, weed rose, or poisonous plants effectively delay the intruders' movement alone or in conjunction with other delay systems.

d. Chemical and Biological Agents.

(1) Riot control agents are effective in temporarily confusing and delaying hostile forces.

(2) Lethal chemicals and lethal or incapacitating biologicals are considered in the planning phase, but their use in stability operations is not probable.

e. Integrated Barrier System.

(1) Figure 4–1 depicts a type of wire barrier made from standard wire barriers (two double aprons with inverted triple standard concertina). The barrier wire may consist of horizontal (double apron and tangle feet) and vertical (stacked concertina, 2-wide, 3-deep) obstacles. They may be supported by mines and booby traps and require visual surveillance and fire-support coverage.

(2) Various developments in surveillance and sensory equipment provide the means for a more effective barrier system. Figure 4–2 shows a strengthened system utilizing the conventional barrier in duplicate and reinforced by minefields and a line sensor system. Surveillance of the system is greatly improved by employing personnel detection radar and night observation devices. Searchlights give the capability for night illumination. Flame weapons and flame field expedients may be used to provide close-in illumination and to produce casualties. Infiltrators can be taken under fire by mobile reaction forces employing direct fire with small arms supported by artillery, close air support, attack helicopter support, or naval gunfire when within range.

4–6. Illumination

a. Illumination is the use of artificial means to light an area of operations for combat, combat support, and combat service support troops. In stability operations, it includes lighting any area as a security measure. A detailed discussion of illumination employment, characteristics, and capabilities is in FM 20–60 and appropriate technical manuals (TM).

b. The general purpose of illumination is to provide sufficient light during hours of darkness for friendly forces to operate. Proper use of illumination means permits more effective execution of night offensive and defensive operations; facilitates the organization of defensive positions, the conduct of the defense, and continuous maintenance and repair operation; and promotes troop confidence and morale.

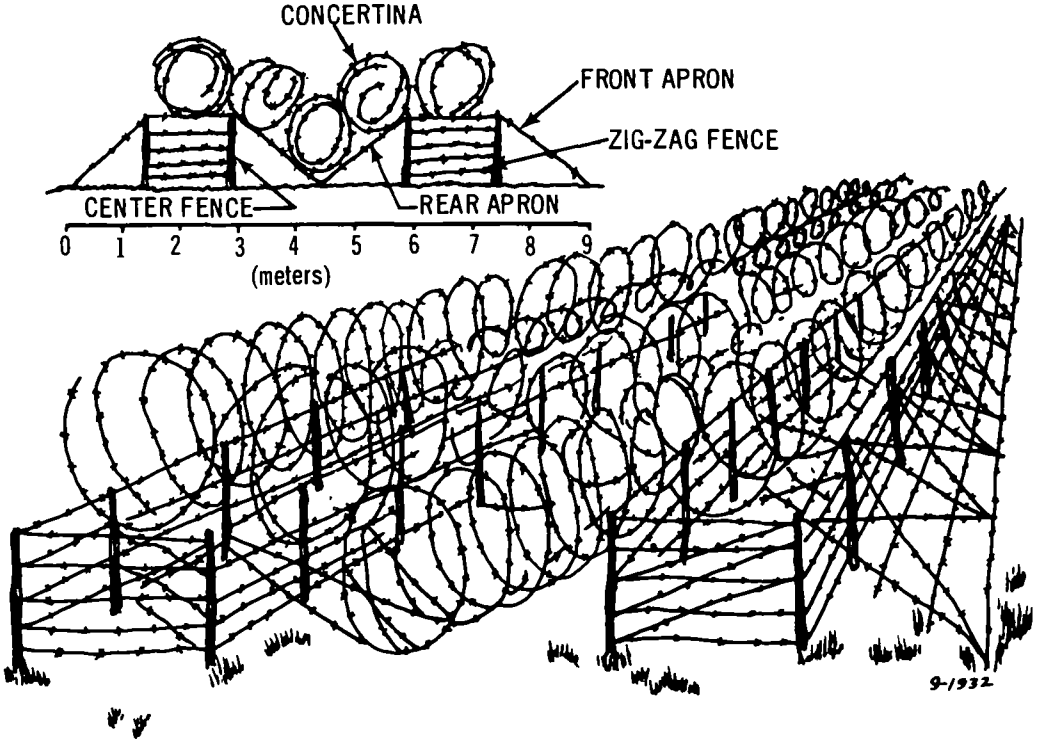


Figure 4–1. Conventional wire barrier.

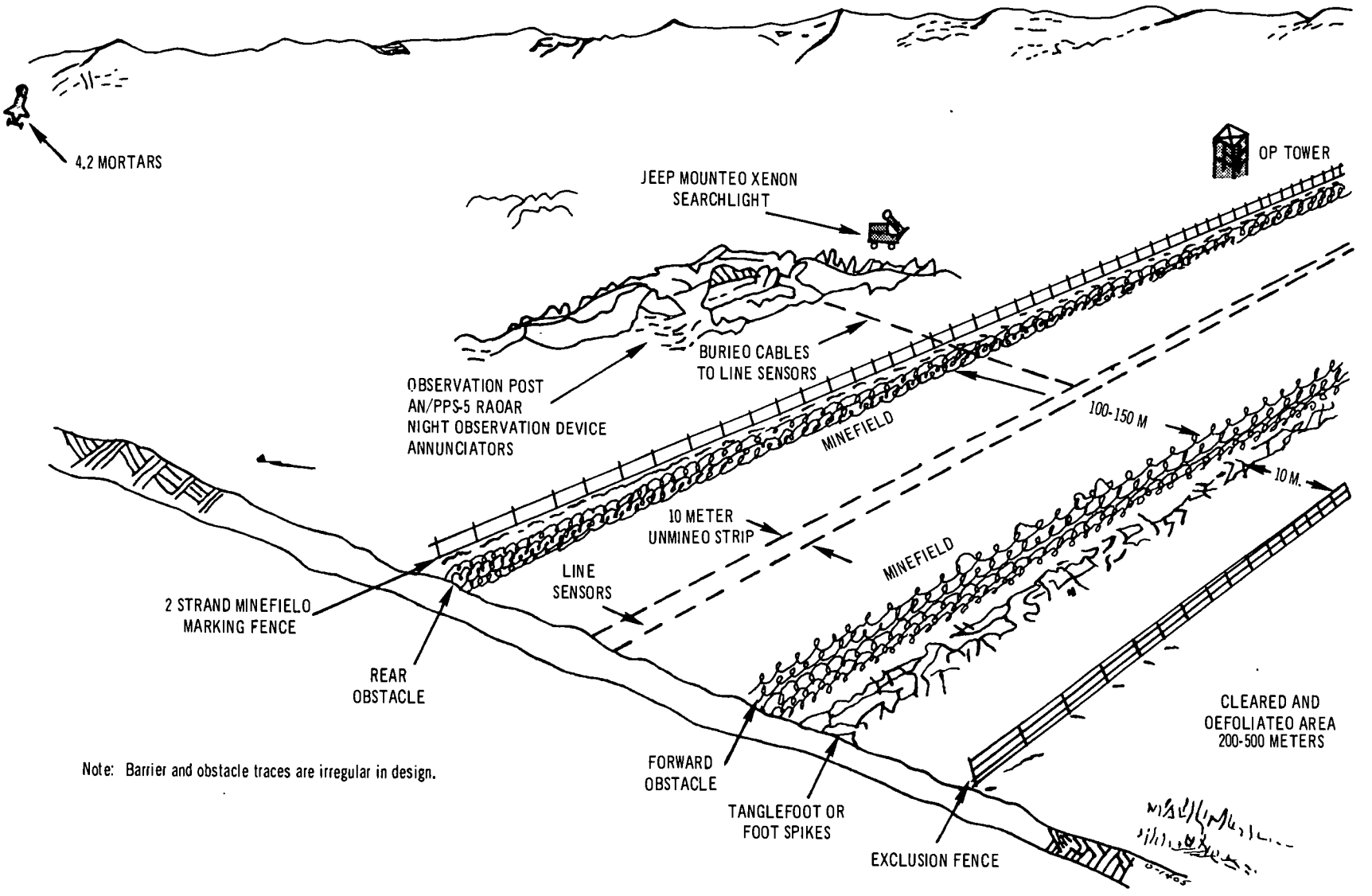


Figure 4-2. Strengthened barrier system.

c. In the base defense, illumination may—

(1) Facilitate the early detection and blinding of, and the placing of effective fire on, an attacking enemy, for psychological as well as physical effects.

(2) Permit more effective siting of direct fire weapons and adjustment of indirect fires.

(3) Promote confidence in personnel manning defensive positions at night.

(4) Discourage enemy patrol action, infiltration, and night attacks.

(5) Facilitate conduct of night counterattacks.

(6) Facilitate the displacing, handling, and servicing of weapons and vehicles.

(7) Facilitate the security of critical installations and resources where the primary threat is from infiltration and/or ground attack rather than air or artillery action.

(8) Facilitate the location and evacuation of casualties.

(9) Facilitate communication by providing light to assist wire crews in laying or maintaining wire lines; to assist radio teams in erecting or taking down antennas; and to assist messengers in finding routes to their destinations.

d. The principles of battlefield illumination are outlined in FM 20–60; however, the following are emphasized as they relate to base defense.

(1) The employment of an illumination means is a command responsibility. After the commander considers the effects of illumination of one area on the operation of a unit in an adjacent area, he decides whether to employ illumination (types, means, degree, and area). Direct coordination is made with adjacent units when illumination could affect those units.

(2) Where possible, a means of illumination that gives maximum advantage to the user is employed; for example, an illumination means from other than organic weapons frees those weapons for their primary mission of providing conventional supporting fires.

(3) Extreme caution is exercised when using illuminants, to preclude exposure of the base perimeter defenders, outposts, and ambush and reconnaissance patrols.

e. Illumination means available to support base defense operations include—

(1) Ground signals.

(2) Illuminating grenades.

(3) Trip flares.

(4) Artillery and mortar illuminating shells.

(5) Naval illuminating shells.

(6) Aircraft flares.

(7) Artillery and tank searchlights.

(8) Field expedient illumination devices.

(9) Airborne illumination systems.

(10) Protective lighting.

Items (1) through (9) above are discussed in detail in FM 20–60 and other appropriate field manuals and TM; item (10) is covered in FM 19–30. Additional discussion of item (9) follows in *f* and *g* below.

f. Airborne illumination systems, mounted on either fixed- or rotary-wing aircraft, may be employed in the direct illumination role for—

(1) Illuminating landing zones.

(2) Target acquisition and engagement.

(3) Surveillance and reconnaissance.

(4) Convoy escort.

(5) Search and rescue.

As an example, the U.S. Air Force C–123 mounts a light system that can illuminate approximately 3½ square miles on the ground with illumination four times that of a full moon. The system can provide a continuous light source for periods up to 7½ hours. Also, the U.S. Air Force C–130 may be equipped with large volume automatic flare dispensers that will handle the high-speed launching of up to 400 Mark 24 flares.

g. In a stability operations environment, the commander of a fixed or semifixed base considers the employment of protective lighting to illuminate the boundaries and approaches, as well as the area and facilities within the property boundaries or perimeter. This protective lighting should not be used only as a psychological deterrent. It is used on a perimeter only where that line is under continuous or periodic guard observation. Light conditions inadequate for employment of the starlight scope may be improved by the use of artificial illumination. Guard towers, whether continuously or intermittently occupied, normally are provided with a movable luminary or searchlight, controllable from the tower. Also, protective lighting may be desirable for those sensitive areas, structures, or resources within the perimeter that are under

specific guard observation. An alternate power source for protective lighting systems should be considered in the early stages of planning where the primary power source may be subject to interruption as a result of either natural hazards or enemy action.

h. The type of lighting system used depends on the overall security requirements of the base concerned. Four general types of lighting systems are discussed in FM 19–30.

4–7. Destruction Elements

a. Reaction Forces. Base defense force elements or other reserve forces are positioned to intercept intruders within their sector of responsibility—on the base, on the base perimeter, and outside the base. Intercept is a function of time and distance. Ground mobility and air mobility increase the reaction force's effective base area coverage.

b. Indirect Firepower. Artillery and mortars are the fastest means of responding to intruders beyond the base perimeter in the absence of forces or enemy-initiated destruction devices. A free-fire zone beyond the barrier is required for their optimum employment. A reasonable (or directed) standoff distance from built-up areas is required to avoid death, damage, or destruction to civilians and their property by use of artillery.

c. Armed Helicopter and Airstrikes. The use of airstrikes against the enemy is highly effective, but is restricted by weather and the time available between detection and delivery of ordance. Similar restrictions apply to armed helicopters when they are distant from the base or when conditions are unfavorable.

4–8. Integration and Coordination of Defensive Measures

a. The careful integration and coordination of all defensive measures, both active and passive, are essential to an effective overall base defense plan. This should include—

(1) Fire support plans to provide—

(*a*) Support for the base defense force.

(*b*) Aid in control of unoccupied areas.

(*c*) Cover for barriers.

(*d*) Support for offensive actions such as counterattacks.

The base defense force commander integrates planned fires into the overall defense scheme and coordinates fires of all units.

(2) Natural barriers and obstacles supplemented with artificial barriers and obstacles to delay enemy attacks.

(3) Intrusion detection devices, both sophisticated and improvised components of the barrier system, to provide early warning of barrier infiltration attempt.

(4) Day/night vision aids to provide an extension to the surveillance capability of airborne and ground observers. The base defense force commander carefully positions the available devices to insure maximum area coverage.

(5) Integration of Army aviation and close air support into the defense scheme to provide air reconnaissance and surveillance, air fire support, reaction force mobility, and resupply support.

(6) Hardening and dispersal of base resources and facilities to reduce their vulnerability to damage and destruction by standoff mortar and rocket attacks. Planning these passive measures is concurrent with base development planning.

b. Base defense coordination includes not only that with all units lodged on the base, but also that with those units adjacent to the base, whether they are U.S. or other friendly forces, military, paramilitary, irregular, or police. This coordination assists in achieving cooperation, tends to reduce the danger of friendly forces becoming engaged in a firefight, and eliminates duplication of effort.

Section III. PLANNING

4–9. General

a. The normal defense planning sequence is followed in planning the base defense. At the inception of base defense planning, initial estimates of the situation indicate the general nature of security and protective measures that should be instituted. As additional intelligence becomes available, the base commander can deduce more accurately the form and strength of attacks that the enemy can launch against the base and thereby determine in further detail the form of defense to take.

b. Sound plans for the defense are developed only when based on sound intelligence and a continuing estimate of the situation. In addition to the influence of enemy capabilities, other noteworthy considerations directly affect planning. The character of the base and its geographic location, type, and size, in varying degrees, influence the formulation of plans for its defense. Plans for base defense are closely integrated and coordinated with those of the theater, area, or subarea containing the base to achieve maximum economy of effort.

c. The influence of higher authority on planning is reflected primarily in the allocation of means and in the establishment of a priority of tasks relating to operation and defense of the base. The directive to the base commander allocates the means available and may designate a priority of defensive tasks, such as defending a designated critical area. The base commander, in turn, allocates his assigned forces in consonance with the adopted form of defense and distributes the means available to best execute his plans for the defense of the base.

4–10. The Base Commander's Planning

a. To insure effective employment of available forces, the commander issues a comprehensive base defense plan. An initial consideration is the area to be defended. This area may vary from one on high ground with good observation and fields of fire to one in a highly congested area with buildings or jungles obscuring observation and limiting fields of fire. Frequently, the criteria for selection of the actual base site include international, national, or local politics; base mission; access roads; land ownership; effects on the economy; positioning of forces; and many criteria other than those directly concerned with a readily defensible site. Also, U.S. Service components are frequently collocated with host country forces at established bases located near large urban areas, such as Navy elements or Army service support units at port facilities, and Air Force or Army aviation elements at airbases handling commercial as well as military air traffic. Under such conditions, vulnerability to sabotage and attack from insurgents and sympathizers operating within cover of the adjacent urban area increases. Additionally, the presence of indigenous dependents, shopkeepers, and laborers billeted or employed within the base increases the problem of defense. Because of the possibility of multiple occupancy at some bases, having in force a combined base defense plan provides the local base defense force commander necessary authority, defines procedures, and assigns certain defense responsibilities to commanders of major tenant units. Since the success of any plan depends on a sound relationship between preparations and response, this plan emphasizes preattack measures to prevent or reduce damage to the operational capabilities of the base. However, postattack emergency recovery and reconstitution of functions of the base are not neglected.

b. Through the office and authority of the base commander, the functioning of this plan centers around an effective base defense operations center (BDOC) charged with the responsibility for the smooth coordination and efficient operations of the established active and passive defense system. The base commander issues the defense plan consisting of directives that include—

(1) Designation of the critical area or areas. (The achievement of identical protection for all areas of a base is neither economically possible nor theoretically necessary. An analysis of both relative criticality and relative vulnerability determines the protection warranted in any particular part of the base.)

(2) General security measures.

(3) General instructions on passive defense measures.

(4) Assignment of priorities to defensive tasks.

(5) Establishment of formal coordinating agencies.

(6) Announcement of command relationships.

(7) Provision for coordination of security measures.

(8) Instructions regarding combat service support.

(9) Restrictions on opening fires (*c* below).

(10) Instructions concerning use of authorized weapons.

(11) Instructions on the employment of other units of the base that are to be under control of, or in support of, the base defense force.

(12) Instructions covering control and coordination of all base units participating in air defense and air warning.

(13) Instructions concerning conduct of defensive exercises.

(14) Communication instructions covering primary and secondary means, alternate means, and supplementary means to include radio frequencies, light and sound instructions, and general base communication instructions.

c. A requirement to defeat enemy forces with minimum loss of noncombatant's lives and property demands a thorough understanding of the rules of engagement established by higher headquarters. In base defense these rules include the conditions under which base defenders may fire to prevent an impending attack, return fire during an enemy attack, or pursue enemy forces who have attacked the base. Employment of all types of firepower may be prohibited until clearance to fire has been specifically granted by the host country official, military or civilian, having the final authorization power in such matters. All personnel must realize the implications associated with the use of long-range direct and indirect fire weapons in a populated area, particularly in view of the mission of gaining support for the host country government.

4–11. The Base Defense Force Commander's Planning

a. Certain of the foregoing instructions are based on recommendations that the base defense force commander, acting as adviser on matters of base defense, submitted to the base commander. Therefore, the base defense force commander's actual planning commences simultaneously with the base commander's to provide timely recommendations. Close liaison with the base commander, together with a thorough and timely reconnaissance, provides the base defense force commander early knowledge of enemy activities, the base commander's decisions and concept, and the terrain. Once he has this information, the base defense force commander's staff commences planning.

b. Planning responsibilities of the base defense force commander include—

(1) The preparation of the commander's estimate.

(2) The preparation of operation and administrative plans and orders to implement the decisions. These plans describe the task organization of the force for defense, the assignment to sectors, and the assignment of tasks to subordinate units of the base defense force, including instructions on counterattack plans. Detailed instructions are included on intelligence, security, organization of fires, general measures regarding handling civilians, counterguerrilla measures, logistics, and communications.

(3) Preparation of a deception plan, if required.

(4) Preparation of antiairborne, antiairmobile, antimechanized, antiwaterborne, and barrier plans.

(5) Provisions and arrangements for training, defense exercises, and rehearsals.

(6) Provisions and arrangements for the coordination of the units of the base defense force with other forces.

(7) Preparation of an air defense plan.

c. Base defense operations may encompass those against overland raids; standoff mortar/rocket/artillery attack; airborne, waterborne, or amphibious attack; or against a combination of these threats. The base defense force commander considers each type of threat in fulfilling the planning responsibilities outlined above. In stability operations, the base defense force commander considers these additional specific problems:

(1) Control of civilians who may be on or adjacent to the base.

(2) Lack of unity of command in those instances of multinational base occupancy.

d. The base defense force commander, assisted by his staff, makes a detailed reconnaissance of the area on foot or by vehicle, boat, or aircraft. On the basis of reconnaissance and other information, he analyzes the defensive area to determine the specific areas that require control. He considers the need for such defensive measures as—

(1) Use of aviation and reconnaissance units to provide early warning.

(2) Obstacles and barriers.

(3) Defense against guerrillas, sabotage, infiltration, suicide demolition squads, and swimmers.

(4) Defense during reduced visibility.

(5) Security or control of the civilian population near the base area.

(6) Defense against air, airborne, airmobile, waterborne, and/or mechanized attack.

(7) Defense against mortar, artillery, recoilless rifle, and rocket attack.

(8) Use of revetments and dispersion.

(9) Use of weapons not required by units conducting operations away from the base.

(10) Employment of tactical air and naval fire support.

(11) Use of mortars and artillery in both an indirect and direct fire role covering avenues of approach.

(12) Use of air defense weapons in a ground support role.

e. The base defense force commander determines the additional security measures employed —electronic surveillance devices, infrared equipment, light intensification equipment, illuminants, barbed wire, antipersonnel mines, and alarm devices. As time permits, he may cause construction of an earthen berm completely around the defensive perimeter (generally the base perimeter) to prevent flat-trajectory fire from entering the base. Strongpoint defensive positions, generally bunkers, are constructed in the berm, and fighting positions are prepared near the bunkers.

4–12. Intelligence Planning

a. General. Accurate, detailed, and timely intelligence is mandatory for the successful development and execution of plans, policies, and operations for base defense. Since intelligence operations are conducted to produce that intelligence necessary to insure accomplishment of the mission, requirements are mission-oriented; and the information obtained is analyzed and interpreted for its significance in relation to base defense. In base defense operations, intelligence planning and operations concerned with gathering information are extremely important. However, of greater importance, is insuring that the intelligence derived therefrom is expeditiously disseminated to those who urgently need it and who can immediately react to it. In stability operations, the civil population is an important source of information because the insurgent war revolves around the attitude of the people toward the host government. Both insurgent and government forces attempt to win the loyal support of the population. The insurgent has directly associated the people with the insurgency through promises or threats in order to gain their loyalty and continuing support. The insurgent depends on the support of the people to sustain his manpower requirements, his logistical needs and his intelligence collection effort. This then provides one of the most important distinctions between stability operations and conventional warfare. Almost every action taken must be carefully considered as to its possible effect on the people, weighing immediate effects versus long range effects, and effects on the enemy as opposed to effects on the people. Consequently, people are as important in the collection of intelligence as are enemy, weather, and terrain. For this reason, liaison with host country military forces is essential to obtaining intelligence information.

b. Procedures. The general doctrine, methods, and procedures for collecting, processing, and disseminating intelligence are covered in FM 30–5 and other specialized field manuals in the 30 and 32 series. The procedures discussed in these manuals can be applied to base defense operations.

c. Planning. Essential to intelligence planning in base defense operations is a determination of the activities that the insurgent can conduct concurrently. While intelligence efforts are directed primarily toward direct insurgent tactical activity, they also are directed toward indirect insurgent actions such as economic interference, civil disturbances, or outright violence in proximity to the base boundary or perimeter.

d. Responsibilities. The responsibility for causing production of accurate and timely intelligence is a function of command at all levels. Coordination of action in the overall intelligence effort takes on added significance in bases housing multi-Service units. This coordination insures total requirement coverage for all Services and eliminates possible duplication of effort.

(1) *Base commander.* The base commander's primary responsibilities that affect base defense force intelligence functioning are—

(*a*) Provision of information and intelligence to satisfy the specific requirements of the base defense force.

(*b*) Establishment of intelligence liaison with applicable area, subarea, higher, and adjacent commands, and various police agencies.

(*c*) Direction of the reconnaissance and surveillance effort of the base defense force; and arrangement for reconnaissance and surveillance to be conducted by units supporting the base defense force.

(*d*) Assignment of reconnaissance and surveillance missions and other intelligence tasks to the base defense force commander.

(*e*) Handling of target information by establishment of a target information center or similar agency.

(*f*) Procurement of maps, charts, imagery, and other graphic aids for the base defense force.

(*g*) Determination of counterintelligence measures applicable to the base defense force.

(*h*) Provision of intelligence specialists to augment the base defense force, when required.

(2) *Base defense force commander.* The base defense force commander is responsible for—

(*a*) Determination of intelligence requirements of the base defense force.

(*b*) Preparation of an intelligence collection plan to satisfy these requirements.

(*c*) Submission of requests for required information and intelligence to the base commander, and, where applicable, through him to higher and supporting commands.

(*d*) Submission of requests to the base commander for reconnaissance, and surveillance to be conducted by external agencies whose reconnaissance cannot be controlled by the base defense force.

(*e*) Assignment of reconnaissance and surveillance missions and other intelligence tasks to elements of the base defense force.

(*f*) Execution of reconnaissance and surveillance missions and other intelligence tasks assigned by the base commander.

(*g*) Preparation of intelligence estimates, summaries, and studies for the base defense force and dissemination of information, including target information and intelligence, as developed, to the base commander and to interested commanders of elements of the base defense force organization.

(*h*) Determination of base defense force requirements for maps, charts, imagery, and other graphic aids; submission of requirements for these to the base commander; and distribution of such material within the base defense force.

(*i*) Determination and execution of counterintelligence measures required within the base defense force and submission of requests for counterintelligence assistance to the base commander.

e. Determination of Requirements.

(1) The initial task in the intelligence process is a determination of the intelligence required for planning and executing the defense. An early determination of basic requirements is essential to insure timely collection of information to satisfy these requirements.

(2) The base defense force commander requires all pertinent information on the enemy, terrain, weather, and hydrographic conditions. Additionally, information relative to friendly and unfriendly segments of the population, and on the extent of military assistance that may be provided from sources near the base is required.

(3) Every defense situation poses distinct problems and generally points up specific gaps in available intelligence. Complete information regarding the enemy in a defense of a base situation rarely can be obtained, particularly with regard to enemy strength, organization, dispositions, reinforcements, arms and armament, and time and place of attack. On examination of all available intelligence, the base defense force commander decides the critical gaps in intelligence and formulates and announces his essential elements of information (EEI). For the most part, critical information needed by the base defense force commander is concerned with the enemy and certain characteristics of the area of operations. The announced EEI includes the priority intelligence requirements of multi-Service tenant forces charged with base defense responsibilities. Specific items of information required most often pertain to one or more of the following areas:

(*a*) Espionage, sabotage, or subversive activities of disaffected or dissident groups or individuals in the area of responsibility of the command.

(*b*) Capabilities and vulnerabilities of guerrillas and dissident or subversive forces, actual or potential, within the area of responsibility of the command.

(*c*) Enemy capabilities, preparations, or activities that pose a significant threat to the accomplishment of the base defense mission.

(*d*) Enemy vulnerabilities.

f. Target Information.

(1) Specific information regarding targets is essential to effective utilization of supporting arms during the defense. Information on targets must be adequate to determine the relative importance of the target and the volume and type of fire necessary to destroy or neutralize it. The overall intelligence effort to locate the enemy and to develop terrain information results in target acquisition. Additionally, specific information on located targets may have to be sought to determine relative importance and vulnerability to supporting arms.

(2) Target acquisition is accomplished by the use of—

(*a*) Forward observers.

(*b*) Observation posts.

(*c*) Air observers.

(*d*) Counter mortar/battery and surveillance radars.

(*e*) Flash and sound ranging devices.

(*f*) Ground surveillance radars.

(*g*) Patrols of all types.

(*h*) Survey parties.

(*i*) Imagery acquired by air means.

(*j*) Ground and air reconnaissance elements.

g. Collection of Information.

(1) The base defense force intelligence officer has staff responsibility for developing plans for his commander relative to the collection of intelligence information. The commander's EEI form the basis of the collection plan. The base defense force commander's EEI and other intelligence missions and tasks specifically assigned to the base defense force are incorporated in the collection plan.

(2) Guidance on preparation and implementation of the collection plan is contained in FM 30–5.

h. Collection Agencies. On receipt of the base defense initiating directive or mission, or on his own initiative, the base defense force intelligence officer establishes liaison with the base intelligence officer to ascertain collection agencies available to support the defense. He directs particular attention toward air reconnaissance and weather information collection, using Navy, Air Force, and air defense force capabilities to collect information required by the base defense force commander.

i. Sources of Information.

(1) Maximum exploitation of all available sources of information is essential. Details relative to sources of information are contained in FM 30–5 and FM 30–31.

(2) Immediately on activation of the base defense force, on receipt of the initiating directive or mission, or on his own initiative, the base defense force intelligence officer arranges to examine all available sources of information contained in the files of the intelligence sections locally available for developing a base of information and intelligence for the base defense force commander's and staff's use.

(3) The base defense force intelligence officer acquires from locally available sources all possible pertinent information and intelligence on the potential enemy and the area of operations, develops an intelligence base of information and intelligence, and incorporates it into the intelligence files of the base defense force.

(4) During an insurgency, the people are the most abundant source of information available to collection agencies locally. Many people, particularly members of dissident groups and their leaders, possess information about insurgent personnel, their intelligence collection activities, and their local supporters. Still larger segments of the local population have firsthand knowledge of insurgent psychological operations and propaganda. To deal effectively with the people, the intelligence officer needs to know the political, economic, and sociological conditions and the existing or potential causes of popular dissension. Some examples of individuals who, because of their work or position, should receive primary consideration as specific sources of information are leaders of dissident groups, merchants, bar owners and bar girls, native religious leaders and foreign missionaries, medical personnel, ordinary citizens representing predominantly local occupations, and insurgents themselves.

j. Production of Intelligence.

(1) Details relative to production of intelligence are contained in FM 30–5 and other appropriate manuals.

(2) No table of organization exists for a typical base defense force intelligence section. Consequently, the base defense force intelligence officer insures that the internal organization of the intelligence section is adequate to record, evaluate, and interpret all information. If needed, additional intelligence analysts are requested from the base commander.

k. The Intelligence Estimate.

(1) The critical aspects of the characteristics of the area of operations, coupled with the problem of designing a proper defense against an enemy who will make every effort to attack at a place and at a time of his own choosing, require a detailed, intelligence estimate at base defense force level.

(2) Details relative to preparation, form, and content are included in FM 30–5.

l. Dissemination of Intelligence.

(1) The means and methods for dissemination depend on the detail, pertinence, and urgency of the information and intelligence, as well as its intended use. The needs of the user, his resources for handling the disseminated material, and the capabilities of available communications are considerations.

(2) Only pertinent and usable intelligence information is disseminated throughout the base defense force.

(3) The timeliness and the importance of each item of intelligence are weighed carefully as a basis for selecting the dissemination means to be used. Information and intelligence must be timely to permit rapid reaction.

(4) Dissemination within base defense headquarters is by the fastest means available, including personal contact and briefings.

(5) Dissemination to base headquarters, adjacent commands, and lower units is by intelligence reports. The base defense force commander determines dissemination of the intelligence estimate outside base defense force headquarters.

(6) Intelligence reports that transmit observed facts include analysis, interpretation, and conclusions as far as practicable.

(7) The value to the enemy is weighed against the urgency and the need for information being disseminated within the base to determine the degree of security classification to be given in each case.

m. Counterintelligence.

(1) Counterintelligence operations and measures begin when planning begins and continue throughout base occupancy.

(2) Counterintelligence is a command responsibility and a staff function of the intelligence officer.

(3) The base commander is responsible for all counterintelligence measures and activities for the base. The base commander closely controls counterintelligence activities and coordinates them with higher and adjacent commands.

(4) The threat of hostile espionage, sabotage, and subversion, coupled with active combat intelligence operations conducted by the enemy, normally requires a complete, written counterintelligence estimate at base or base defense force level.

4–13. Organization of the Ground

a. A comprehensive plan for organization of the ground originates at the base/installation command level. The plan insures the most efficient and productive employment of base defense forces and capabilities.

b. Organization of the ground involves use of the natural defensive qualities of the terrain and maximum improvement of the natural terrain with the men and materiel available. In addition to the preparation of the perimeter defensive positions, organization includes laying mines, erecting obstacles, camouflage, protective construction, and improving observation and fields of fire. Barriers are integrated into the defensive scheme to hold the enemy under fire or to divert him into areas where fires and offensive maneuver can destroy him. The barrier plan takes maximum advantage of natural obstacles.

c. Detailed coordination is necessary to insure that plans for the organization of the ground are carefully integrated with detailed fire plans and plans for the maneuver of forces, particularly the reserve-reaction force. For maximum effectiveness, obstacles and barriers are covered by fire. Also, the construction of obstacles and minefields must not interfere with the freedom of movement of defense forces.

d. Continuing emphasis is placed on improving and upgrading base defense measures throughout occupancy. Priorities established for construction of weapon emplacements, shelters, and barriers, for example, require flexibility to permit reassignment of priorities if new enemy capabilities so dictate.

4–14. Control Measures

a. Control measures in base defense operations are the same as those in other defense operations; e.g., boundaries, coordinating points, fire control measures, and blocking positions.

b. The directive establishing the base defines the boundaries of the territorial area involved.

c. The base defense force commander, in coordination with the base commander, designates the base perimeter and the defense sector boundaries.

4–15. Combat Support

a. Fire Support. The fire support coordinator prepares fire plans to support the scheme of defense to include provision both for long-range fires

to engage the enemy as early as possible and for fires in direct support of the defending forces. Specific provision is made to furnish close fire support to the reserve in the execution of counterattacks. Field artillery units are located within the base area so that fires may be massed on likely avenues of approach and areas to be denied the enemy.

b. Air Defense. Ground-based ADA automatic weapons are the primary air defense means normally available to, or required by, the commander of a base. ADA weapons may also be employed to provide ground fire support to units of the BDF.

c. Engineer Support.

(1) The primary support missions of the base engineer forces in base defense are to increase the defensive capabilities of the base defense force by assisting in the organization of the ground and the preparation of defensive positions. Engineers may prepare demolitions, supervise and assist in laying minefields, and prepare and maintain access routes. The base engineer assists in formulating the overall barrier plan and implementing it.

(2) When the requirements for engineer support within the base exceed the capability of the base engineer elements, the base commander requests additional engineer support from the next higher headquarters. Such engineers are normally placed in support of, rather than being attached to, the base engineer unit; however, they work under the supervision of the base engineer.

d. Communications Support.

(1) *General.* Communications as applied to base defense, includes all means of conveying information of any kind from one person to another. The means of communication available are wire, radio, messenger, and visual and sound signals. Because the various means of communication have different capabilities and limitations, they must be employed to complement one another. Placing entire dependence on any one means of communication is avoided.

(2) *Communications in base defense.* The primary function of communications in base defense is to tie together all elements involved in base defense activities. The size of the base, the availability of types of communication equipment, and the size and physical positioning of base defense elements are factors considered in establishing the desired communication system. The following guidelines apply to the establishment of the system:

(*a*) Wire/cable links are used to the maximum between fixed terminals with the defended perimeter.

(*b*) Radio links are provided for communications with patrols, outposts, and specified vehicles, sentries, and guards.

(*c*) Radio backup communications facilities are provided at fixed terminals.

(*d*) Flares are provided at all bunkers and outposts, along the defended area's perimeter, and at certain special locations.

(*e*) Temporary radio communication links are provided at fixed terminals if delay or difficulty is encountered in installing a wire/cable link.

(*f*) Available inventory communication equipment, with any of the usual frequency bands (e.g., high frequency, very high frequency, ultra high frequency, or microwave), can be used at most bases.

(3) *Communications requirements.* The communication requirements of the base defense force are extensive for both radio and wire equipment. Although an extensive wire system is established, radio nets are established and procedures are prescribed and rehearsed for emergency activation of nets as required. Constant effort is made to improve the communications network and to provide additional alternate means. Base units generally are unable to provide the required equipment from their authorized allowance without seriously impairing their own operations. Therefore, augmentation of available signal equipment is necessary. When the requirement for communications support within the base exceeds the capability of the base communications element, the base commander may request additional communications support from the next higher headquarters or supporting communications unit.

(4) FM 11-21, 11-23, 11-50, and 24-1 provide details of communication support and doctrine.

e. Chemical Support.

(1) The base defense force commander prepares detailed plans to insure the close integration of chemical weapons with other fire plans, barrier plans, and the scheme of defense.

(2) When authorized, the commander may use riot control agents and incapacitants in support of forces along the base perimeter, on enemy forces concentrating for an attack, and in support of the reserve in executing counterattacks.

(3) The commander can use smoke to obscure operations from the enemy by blinding enemy observation posts and by hindering enemy air observation and tactical air operations within the base area. He plans the use of smoke with caution, however, so as not to block essential observation by the defending forces.

(4) FM 3–10, 3–50, 20–32, 20–33, and 101–40, and TC 3–16 contain information on riot control agents, flame, smoke and herbicides, and their employment.

f. Aviation Support.

(1) Use of aviation in base defense is similar to its use in other types of operations.

(2) In a base having organic aviation means, the aviation element normally remains under control of the base commander. Flight elements may be placed in support of subordinate units, to include the base defense force.

(3) Reconnaissance and surveillance are particularly important in base defense. Constant surveillance of the base area and effective reconnaissance are necessary to obtain early and continuous information of the enemy, to acquire targets, and to verify and evaluate potential targets.

4–16. Combat Service Support

a. General. Current doctrine pertaining to combat service support under varied operational environments provides for principles, concepts, and techniques applicable to the needs of the base defense force. Planning for base defense operations considers significant environmental and operational factors as they affect the logistic functions of supply, maintenance, transportation, construction, and labor.

b. Supply Support.

(1) Planning for initial supply of equipment in support of a base defense system requires all normal considerations, plus a phased plan for the introduction of specialized equipment and supplies germane to base defense operations. Special equipment for land clearance is planned for timely arrival. Requirement for heavy tonnage items, such as barbed wire and tape and construction material, is planned to insure both their availability and the means of transport to the barrier site.

(2) Following the initial issue of materiel in support of the base defense system, provisions are made to support and sustain the system through continuous automatic and on-call supply. Special sensing and detection devices, particularly those items of known life expectancies, need replacing without disrupting the continuous operation of the barrier system. Batteries, mines, and expendable-type sensing devices should be readily available through supply channels rather than stockpiled at the barrier site.

(3) Experience factors on which to standardize resupply procedures have to be computed and determined early in the base defense mission. A compilation of accurate experience data on items not previously used in the area of operation is essential. Procurement leadtime and the total pipeline time for these replacement items are important considerations. Commanders should be aware of substitute items for use when standard items become out of stock or inoperable. Once experience factors have been determined, a standard basic load to cover the desired period can be established. These basic loads can be prepackaged and prepositioned ready for delivery on a scheduled or on-call basis.

(4) When two or more Services engage in the defense of the same base, supply activities are coordinated and integrated to the extent possible to insure the most efficient use of limited transportation resources, supply personnel, and facilities.

(5) All supplies and equipment use in a tactical or temporary base camp are requisitioned through normal supply channels. However, when a base camp is an improved area with fixed and/or semipermanent facilities, it will be planned and constructed under a base development plan. This plan will encompass the planning, programing, budgeting, and execution of the construction task in the base development.

c. Maintenance Support.

(1) Because of the sophisticated surveillance and warning devices employed, maintenance support to base defense operations takes on a new dimension. Efficiency of a base defense system largely depends on its ability to provide continuous operation. Existing maintenance personnel may require augmentation both in strength and skills to provide this support. A responsive repair or replacement system must be in effect to include mobile on-site repair teams, direct exchange system on site, operational readiness float, and repair parts supply system.

(2) In addition to proper care, preservation, and use of equipment, commanders immediately report deficiencies or weaknesses of operating

characteristics or designs of any equipment. SOP for operation, inspection, and maintenance for individuals, teams, and maintenance personnel are essential for critical items of equipment.

(3) Maintenance intervals and procedures contained in equipment manuals may require local adaptation to meet environmental conditions in the theater. Increased frequency of maintenance services and unremitting attention to operator maintenance are among the local measures that may be necessary to cope with equipment deterioration and to avoid premature failures. Climate and terrain may require performance of semiannual maintenance services as often as every 2 months to keep equipment serviceable.

d. Transportation Support.

(1) In addition to transportation requirements for normal replenishment and logistic support, transportation support planning includes provisions for emergency support involving sporadic or unusual actions. A rapid system must be in effect for replenishing ammunition of all types. Capabilities must exist for reinforcement of troops and airlift of artillery pieces in the shortest time possible.

(2) Aircraft are the most effective means of resupply because of their speed, relative security from ground attack, and insensitivity to terrain conditions. The terrain, tactical situation, and landing area availability may require parachute delivery.

(3) Reaction force vehicles should be hardened to protect the occupants against small arms fire and landmines. A simple and reliable method of hardening a vehicle consists of placing sandbags on the floor and sides of the vehicles. When available, armor plate may also be used.

e. Construction and Labor Support.

(1) The initial construction effort for a base defense system requires detailed planning. Essential construction tasks are roads, aircraft landing strips, base areas, revetments, observation towers and strongpoints, the installation of buried sensors and warning devices, land clearing for line-of-sight detection equipment, excavation for communication trenches, emplacement of concertina wires and tapes, and the dissemination of herbicides to suppress vegetation.

(2) Construction of a base defense system is phased sequentially. Planning is initiated at the lowest command level and coordinated through successive levels of command. While special engineer construction units may assist in many of these construction efforts, the troop units committed to the base defense and security mission perform much of the construction.

(3) Where conditions permit, civilian contractors, either U.S., indigenous, or third-country, are employed to conserve the resources of military construction units and manpower. Maximum use is made of local labor and materiel resources when available.

4–17. Base Damage Control

a. The term "base damage control" refers to measures used to avoid or minimize the effects of enemy attack or natural disaster on base operations. Close coordination between the designated base damage control officer and the base defense force commander assists in control and prevents overlapping of effort.

b. The base damage control forces consist of elements of base units. Damage control teams from these units perform damage control functions in their own units or reinforce other units or installations when the base commander directs or the situation warrants. Careful planning prevents tasking the same units for defense force and base damage control personnel. Debris must be removed and craters filled as soon as possible.

c. Action to prevent damage and to establish readiness for dealing with attacks is of primary importance in base damage control operations. This action includes planning, training, practice alerts, dispersion, and camouflage. When an attack occurs, the objective is to resume operations, which includes maintaining or restoring control, evacuating casualties, isolating danger areas, and reducing personnel and materiel losses.

d. FM 19–45–1, 54–2, 100–5, and 100–10 contain further details on area (base) damage control.

4–18. Counterattack

A counterattack is an attack by part or all of a defending force against an enemy attacking force, for such specific purposes as regaining ground lost or cutting off or destroying enemy advance units, and with the general objective of denying to the enemy the attainment of his purpose in attacking.

a. Base defense counterattack plans are prepared for each part of the defended area on the basis of assumed penetrations. Key localities, the loss of which would threaten the vital areas of the base, high ground that offers good observation, or terrain features that dominate avenues of ap-

proach are assigned the highest priority in counterattack planning. Although plans for the counterattack are prepared in advance, flexibility in execution is critical because counterattacks may be launched at times other than those planned or in an entirely different area from that which the plans had anticipated. Other factors influencing base defense counterattack planning follow:

(1) The limited mobility and effectiveness of augmentation units that will be integrated into the base defense force.

(2) The time of arrival of augmentation units.

(3) The necessity for maintaining security elements or defense forces in areas not under immediate attack to maintain the operating integrity of the base.

(4) The number and location of exits (lanes) in the barrier system for counterattack forces.

b. Base defense force counterattack plans based on the foregoing planning considerations include—

(1) Usually the base defense force reserve is committed as a unit if it is to be committed as the counterattacking element.

(2) Attached or supporting units are designated in counterattack plans to insure that they constitute an integrated force with maximum shock effect and firepower. Counterattack plans provide for a single coordinated blow delivered by as large and as strong a force as the situation and the terrain permit.

(3) Counterattack plans include provisions for all available fire support means to be used to support counterattacks. Fire support plans for counterattacks include—

(*a*) Fires to support the maneuvering force.

(*b*) Fires across the base of a penetration to destroy enemy forces attempting to enter or leave the area of penetration.

(*c*) Fires within the penetrated area.

(4) Plans are prepared to provide for detailed rehearsals at the same location selected as probable for penetration or over similar ground in another area. If rehearsals are impracticable, subordinate unit commanders from attached and supporting units conduct a reconnaissance on the ground. During or in conjunction with the reconnaissance, the preliminary plans are outlined to them.

(5) Plans include provisions for security of those areas not under attack. These plans are designed to preserve the operating integrity of the base for as long as possible.

(6) The effective application of combat power requires full coordination of effort throughout all echelons. Coordination of effort requires adequate means of control. The basic means for control are reliable, secure communications; timely orders; and effective command facilities. Specific control measures for counterattack plans are outlined in FM 61–100.

(7) When the base defense force executes a counterattack, it launches the attack with the full power of its available resources. The decision to execute the counterattack is, therefore, based on a reasonable chance of success. While the reserve is employed in the counterattack, the base defense force commander uses any available units to constitute a new, temporary reserve.

(8) The success of a counterattack depends on the commander's and staff's ability to visualize all possible situations that might exist and, when the enemy attack occurs, to select a suitable course of action to defeat it. Particular attention must be given to the detailed fire support plans that have been prepared for each counterattack plan to insure that they include preparatory fires, countermortar fires, and fires in support of the counterattack. Extreme care is exercised in preparing fire plans to insure flexibility in the use of planned fires and effective fire coordination measures. Although fire support is planned to permit early engagement of enemy forces, in some instances it may be withheld to develop maximum surprise and shock. The decision to fire at long range or to withhold fires is a critical one, made by the commander in each case. Counterattacks may gain such momentum as to preclude the use of planned fires for their success.

(9) Communications are used to control both the counterattacking force and the weapons that support it. Communication plans are prepared in detail to permit the effective exercise of command. The primary functions of communications are to control the counterattacking force, to transmit orders and information, to coordinate action, to regulate supplies, and to maintain contact with higher, subordinate, supporting, and adjacent units. The plans must be flexible and capable of supporting the maximum operational requirements. Reliance on a single means of communication is avoided. Adequate and dependable communications are essential for base defense operations. Inadequacies must be corrected through augmentation of available communications means, or replacement, if required.

Section IV. DEFENSE OPERATIONS

4–19. General

The base defense force conducts its operations to insure continuous operation of the base. Attainment of this goal requires denial of enemy entrance to the area and reduction of damage to the base resources. Continuous evaluation and improvement of the base defense system are essential and enhance the overall defense effort. The defense measures presented in field manuals of the 7 series and FM 61–100 apply to base defense operations.

4–20. Defense Preparations

a. Implementation of base defense measures begins before base units arrive, if possible. Normally, combat units provide the initial defense in the base area. These combat forces remain in the base area, conducting aggressive offensive actions, until base units are capable of assuming the mission.

b. When defending units arrive on position, they immediately start organizing the base defense. Many of the tasks are carried on concurrently, but some may require priority. The base commander specifies the sequence for preparation of the defense system. FM 7–11 provides a recommended sequence.

c. Construction of personnel shelters throughout the billeting, administrative, and maintenance areas provides individual protection against standoff attacks. These shelters may vary in construction. Shipping containers, dugouts, and double-walled plywood shelters with sand or gravel fill, all with sandbag reinforcement and overhead cover provide acceptable protection. These shelters are close to the billets and work areas to permit rapid access. To the degree possible, construction will be in consonance with FM 5–15.

d. Fighting bunkers may be constructed on position or prefabricated and moved to position for assembly. Construction of these bunkers is of sufficient strength to withstand a direct hit by recoilless rifle on the front and sides and a direct hit by mortar on the top.

e. Construction of revetments for critical resources provides protection against mortar/rocket fragmentation. These revetments may be of sand-filled, double-walled construction, either plywood or steel plate sides. Overhead cover is provided when possible.

f. Tactical wire barriers should be used within the perimeter to limit and canalize penetrations by enemy groups or individuals. These interior barriers can be as simple as a single strand of wire 3 to 4 feet high. Generally they should be placed to prevent a direct approach to vital installations. Provisions should be made to cover these barriers by automatic weapons fire by assignment as an alternate mission for weapons teams. The barriers should be constructed as inconspicuously as possible and be relocated periodically to prevent counterplanning by the enemy. Further, the barriers should not be so intensive as to preclude freedom of movement by the reaction or reserve force. These forces, as well as all personnel, should be made thoroughly familiar with the location of all barriers during the course of daylight and night drills.

4–21. Employment of Forces

Forces engaged solely in base defense operations conduct aggressive patrol actions, develop and occupy defensive positions within their assigned sectors, and provide immediate reaction forces to counter enemy attack. These actions may be uni-Service, joint, or combined operations, depending on the composition of base and base area forces. The following paragraphs provide information on patrol, position manning, reaction force activities of the base defense force, and host and third country forces participation.

a. Patrols.

(1) Base defense operations to counter small enemy forces include aggressive, frequent patrolling by squad- and platoon-size forces to detect and capture or destroy small bands of enemy. Dogs add security and additional detection ability to patrol operations. FM 21–75 provides details of patrol activities.

(2) Patrolling is conducted by small, highly mobile units moving on foot or by land, water, or air vehicles during daylight and darkness. Populated areas contiguous to the base are searched, and surprise checkpoints are established along known or suspected routes of communications.

(3) Dug-in or concealed night ambush sites are manned outside the barrier system trace on a random basis. Indigenous personnel should accompany short-range ambushes near populated areas. Their knowledge of local populace and terrain assists the ambush mission. Artillery and mortar

concentrations are registered and plotted to provide rapid on-call support. When a free-fire zone is established forward of the barrier trace, it is seldom necessary to occupy ambush sites in the zone. Detectors and sensors are emplaced to provide early warning of enemy approach. When local restrictions preclude establishment of a free-fire zone, ambush sites are manned forward of the barrier trace and reaction forces are prepared to assist on call.

(4) Base defense force or other base unit reconnaissance patrols obtain target acquisition data. They may penetrate known enemy-controlled territory to install sensors that will report the enemy's presence along infiltration/supply routes. In addition, such patrols observe known infiltration/supply routes and report enemy activities along these routes. They provide early warning of enemy activities—assembly of personnel; movement of weapons, ammunition, or other supplies; and preparation of mortar/rocket firing sites—to the base defense force. In addition to the acquisition of specific targets, reconnaissance patrols may be used to verify or indicate suspected areas so that other types of surveillance or acquisition systems may be employed to obtain information. Indigenous personnel are well suited to assist in base defense reconnaissance patrols. The local nation's knowledge of the terrain, inherent ability to operate effectively in the environment, and to speak the language, plus his familiarity with the local customs, are favorable attributes.

(5) Extended combat patrols are employed in difficult terrain some distance from the base but within range of supporting artillery. Extended combat patrols employ ranger-type tactics and remain committed for relatively long periods. They may be supplied by air and equipped to communicate with the base and supporting aircraft. Such patrols may vary from squad to platoon in size. They have the mission of making planned searches to locate areas where the enemy can rest, regroup, or otherwise prepare for offensive actions. Small enemy elements are engaged and destroyed. Large groups are reported to the base defense force and kept under surveillance; when feasible, they are attacked by artillery or airpower. Augmentation in the form of local civilian or paramilitary guides or trackers significantly increases the effectiveness of extended combat patrols.

(6) A long-range reconnaissance patrol (LRRP) is a speciallv trained unit which can be utilized when available. The LRRP is organized and equipped to function specifically as an information-gathering agency responsive to the intelligence requirements of the commander. These patrols consist of personnel capable of performing reconnaissance, surveillance, and target acquisition within the dispatching unit's area of interest. The LRRP should not be confused with the reconnaissance patrol which normally proceeds to an objective area to acquire certain information and then returns on the accomplishment of the specific mission. Normally the LRRP is positioned to maintain surveillance over routes, areas, or specific locations for extended periods, reporting all sightings of enemy activity within the area of observation. LRRP may be employed—

(*a*) To determine the strength, equipment, and movement of enemy forces.

(*b*) To perform reconnaissance and surveillance of specific routes or areas.

(*c*) To provide information on possible landing zones (LZ) for reaction force operations. (This information includes possible drop zones (DZ) and landing zones (LZ) if other airborne or airmobile operations are anticipated.)

(*d*) To perform appropriate ground information collection functions. FM 31–18 provides information pertaining to LRRP. Normal employment in the base defense mission places the LRRP in the outer extremes of the reconnaissance and surveillance area or on the boundaries of the tactical area of responsibility (TAOR), whichever is farther from the base perimeter.

(7) River and coastal patrols, when available, are employed primarily for surveillance and show of force. Since rocket and other heavy artillery attacks on bases present difficult logistic problems to the enemy, because of the weight and bulk of munitions required, these munitions may be transported by water. The detection of this weaponry is an important river and coastal surveillance mission for the base defense force commander. Both U.S. Army and Navy inventories contain watercraft suitable for this type of patrol.

(8) Scout and sentry dogs are a valuable asset in base defense operations. Their employment should habitually be considered in the planning of all patrol and security operations. The successful employment of these dogs depends both on the skill of the handler and on the knowledge and full understanding of the capabilities and limitations of the dogs by all commanders and staffs. FM 19–30, FM 20–20, and FM 21–75 provide guidance for the use of dogs in the physical security role.

b. Static Positions.

(1) The static positions of the base defense consist primarily of bunkers and towers in the base perimeter area. The positioning of bunkers and towers affords maximum observation and mutually supporting fires over the area forward of the perimeter to include the perimeter barrier and sensor system.

(*a*) *Bunkers.* Although full-time observation and all-round defense of the base are essential, the base defense force commander may, to reduce the number of personnel conducting static defense missions, designate key bunkers around the perimeter to be manned at all times and the remainder to be fully manned during darkness, reduced visibility, and increased enemy threat. Individual fighting positions are prepared near the bunkers to provide covering fires. Night/day vision devices, automatic weapons, grenade launchers, and hand grenades are common to the bunker positions, and recoilless rifles cover possible ground vehicle approaches.

(*b*) *Towers.* Towers provide increased visibility, which may be desired in specific situations. When coupled with night/day vision aids, sensors, and flash-ranging devices, elevated platforms enhance the capability of detecting perimeter infiltration and location of mortar/rocket firing positions. Standard military towers or towers constructed from local materials can be used. The installation of sandbags or steel plating around the observation platform provides protection against automatic weapons and small-arms fire. Construction of a ground-level bunker provides additional protection when fires are directed against the tower. Access to the bunker may be by means of a fireman's pole or a ladder arrangement. Tower safety measures for consideration include—

1. Lightning arresters.

2. Construction to withstand strong winds and to support two observers and their equipment.

3. Enclosed mounting ladder.

4. Provision of safety nets around the tower when warranted by tower height.

5. Painting an appropriate color to reduce reflection from moonlight.

6. Installation of a suitable roof to shield personnel from the elements without interference to observation. A double-roof design could cause mortar rounds to detonate at a height that affords some protection to observers.

(2) Control is the key to a successful base defense. To achieve the necessary control, a communication capability must be established between the base defense operations center and sector commands and between the sector command and its bunkers, towers, and reserve. Additionally, bunkers within each sector can communicate laterally within the sector, and flank bunkers of one sector can communicate with flank bunkers of adjacent sectors.

c. Reaction Force Operations.

(1) Reaction force operations are those operations conducted by base defense force reserve units, operating from the base proper or static security posts, for the purpose of countering local enemy activities. They are similar to conventional spoiling attacks discussed in the FM 7 series. When an enemy unit is located, the reaction force deploys rapidly to engage the unit, disrupt its cohesion, and destroy it by capturing or killing its members. If the enemy force cannot be contained and destroyed, contact is maintained; reinforcements are dispatched if needed; and the enemy is pursued. The enemy force is prevented from reaching populated areas where it can lose its identity among the people and from disbanding and disappearing by hiding and infiltration. When escape routes have been effectively blocked, the attack is continued to destroy the enemy force. The required mobility is provided by ground and air vehicles and by rapid foot movement. Wheeled vehicles for the use of reaction forces are predesignated and hardened with sandbags.

(2) Reaction operations are simple, planned, and rehearsed because the majority of actions are required at night. Primary and alternate points are predesignated for the release of reaction forces from centralized control to facilitate movement against multiple targets. Such points are reconnoitered and photographed for use in planning and briefing. Within security limitations, actual release points are used during rehearsals to promote complete familiarity with the area.

(3) In stability operations, immediate reaction to intelligence or immediate reaction to any type of an attack is essential. Immediate reaction to accurate and timely intelligence facilitates destruction of the enemy before an attack. The same speed in reaction to a standoff mortar or rocket attack may permit destruction of the enemy during the attack or facilitate blocking his route of withdrawal. This immediate reaction is attained through employment of firepower or movement of forces and their equipment.

d. Host and Third Country Forces. The base defense force commander normally considers the

integration of host and third country forces in the overall base defense effort. Particular emphasis is on integration of host country forces in patrol and populace control activities. Both host and third country forces provide local security for their own units; however, to insure maximum benefit, all such local plans should be coordinated with and integrated in the base master defense plan. The actual degree of host and third country force participation in base defense depends on the orders and guidance of their respective governments.

4–22. Defense Against Ground Attack

In stability operations, base defenses are maintained on a continuous basis. The ability of the enemy force to attack at a time and place of its choosing makes the defense mission more complex; it is most difficult at night. The general doctrine of defense applies during day operation. The following techniques are employed during night defense missions:

a. Surveillance. The entire base area and the barrier system are kept under surveillance. Large areas are covered from the air; visual photographic, infrared, and radar air surveillance means are used when available. Although air reconnaissance frequently locates large enemy unit movements and resupply operations, small units moving at night, particularly under heavy foliage, are extremely difficult to locate. The principal means of close-in surveillance during darkness is ground observation posts (OP). OP use visual and audio means to detect enemy movement. Special attention is paid to keeping all water routes, including drainage ditches that afford entry to the inner defense zone, under continuous surveillance. Artificial illumination, active and passive devices, sound amplification devices, and radar aid the surveillance effort. The basic differences between surveillance in stability and conventional operations, are that in the former, larger areas are covered by smaller units and the requirement exists for 360° surveillance.

b. Patrols. Patrols cover the area to be protected, particularly during darkness. In addition to locating enemy movement at night, the patrols make enemy movement more difficult, thus helping to keep them out of the area. Patrols concentrate the majority of their efforts on likely routes of movement and around populated areas. Because insurgents are usually a part of the local populace or at least are receiving some support from them, they frequently try to come into or leave populated areas during the night. Patrols attempt to stop this movement. Patrol activities are coordinated with local police and indigenous military and/or paramilitary forces in the area to avoid interference and to insure complete coverage of the area. Patrol movements are conducted at random to preclude establishment of a pattern detectable by the enemy.

c. Ambushes. In addition to the moving patrols, ambushes are established on likely routes of insurgent force movement. Ambush patrols have to be large enough to engage the number of enemy that can logically be anticipated, but they are kept as small as possible to minimize the probability of detection. As with other patrols, coordination with military and civilian security forces in the area is essential. Also, fire support, reinforcement, and withdrawal plans are prepared. Usually ambushes are established after dark and withdrawn after daylight. However, a pattern must not be established or the insurgents will learn the pattern and evade the ambushes.

d. Prepared Positions. Fighting bunkers are constructed behind the barrier system. Ideally, the bunkers are positioned in an earthern berm surrounding the base. The berm affords protection against direct weapon fire into the base. Bunkers are sited to insure that the entire perimeter is covered by fire. Each bunker has an assigned sector of fire and, in some cases, a final protective line to be fired if the enemy assaults. Watchtowers may be interspersed with the bunkers to improve observation of the immediate area. Installing sandbags around and on top of those bunkers not located in a berm is another method of providing protection from direct hits by mortar or recoilless rifle fire. Trenches run between the bunkers to facilitate unexposed movement of personnel in those instances where a berm does not surround the base. Prepared positions are rarely used outside the barrier.

e. Firepower. Fire support plans are prepared for the defense of every base. These are centralized plans for the employment of artillery, mortars, armed helicopters, and close air support. The plans include harassing and interdiction (H&I) fires and fires to support counterattacks.

f. Passive Measures.

(1) Employment of passive defense measures such as constructing revetments, bunkers, and foxholes; reinforcing buildings; dispersing mova-

ble vital resources; and enforcing light and noise discipline, all enhance the overall base defense effort.

(2) Successful defense against ground attack depends on early warning, well-prepared positions, effective grazing fire, well-laid obstacles, well-planned fire support, and use of immediate reaction forces.

4–23. Defense Against Mortar, Artillery, Rocket, and Recoilless Rifle Attack

a. When enemy forces are unable to penetrate the base perimeter in strength, they may infiltrate mortars, artillery, rockets, and recoilless weapons into preplanned and prepared positions within range of the base. Standoff attacks are planned and executed to place a large volume of fire on the base to inflict casualties and destroy resources. These attacks are normally of short duration, from 10 to 20 minutes, with many rounds being fired. The weapons are normally withdrawn from the area when their mission is completed or their position is discovered.

b. A plan for aggressive action is required to detect the infiltration of weapons and to locate firing positions. When formulating the plan for defense against enemy mortar, artillery, rocket, and recoilless rifles, the base defense force commander considers likely firing positions, routes to likely firing positions, intelligence reports, reports by indigenous personnel, and resources available for implementation of the plan. He plans aggressive action to locate and destroy the enemy force and passive defense to reduce casualties and damage. The best defense against these attacks is to make them so costly in manpower and equipment that the enemy does not consider them worthwhile.

c. Since the establishment and maintenance of a restricted area around the base is not always possible, aggressive countermortar and recoilless rifle fire plans are necessary. In this regard, the commander considers that the enemy may fire his mortars at the base when base units are firing their indirect fire weapons. This firing makes countermortar radar detection difficult, causes confusion, and could lead to a cease-fire by base elements in order to investigate the possibility of short rounds having been fired by friendly weapons. This action should be explained to all base personnel to maintain confidence in the indirect fire weapons. It also underlines the importance of shell reporting.

d. Primary among active measures employed against this type of attack are the airborne observer, countermortar radar, and reaction forces.

(1) An airborne observer is one of the best active defense measures against a standoff attack. Observation aircraft, armed helicopters, or close support aircraft orbit the base area checking likely or suspected positions and noticeable changes in the terrain. When a position is discovered, they act against the position, adjusting artillery or using their own weapons.

(2) Three hundred sixty degree countermortar radar coverage is desirable. Lacking in this capability, the available devices scan the most likely direction or directions of attack. Fires are planned for likely enemy firing positions and coordinated with the countermortar radar operations. Automatic fires are preplanned to be fired into suspected locations as soon as an attack begins. When radar has located enemy firing positions, the base defense force commander employs all available fire support against them. In the absence of radar, or to supplement existing radar, observers may use field expedient flash ranging procedures. Targets are located by visual observation and intersection from two or more towers or observation posts. Observation posts and towers, with or without viewer equipment, should have installed a properly oriented azimuth or direction board so the direction of sightings can be rapidly determined and reported to the BDOC.

(3) The use of reaction forces, lifted by helicopters to cut off the withdrawal of the enemy force, is a primary consideration. The reaction force must be careful to prevent establishing a pattern, e.g., always using the same LZ. When the enemy is aware of a pattern or when he can predict landing areas, he can set up an ambush to destroy the reaction force.

e. Passive defense measures are always practiced within the base. In addition, an effective psychological warfare and civic action program is established to insure civilian cooperation. Procedures insure that all sentry or intelligence reports indicating an attack, are evaluated. Preparation of positions, movement of weapons or ammunition, unusual actions or movement of the civilian population, and reports by indigenous personnel may be indications of an attack.

4–24. Defense Against Airborne, Airmobile, and Waterborne Attack

a. Defense against airborne, airmobile, and wa-

terborne attack includes air defense measures, an early warning system, troops available to defend likely objectives, and mobile reserves.

b. Attacking airborne, airmobile, and waterborne elements normally are dispersed during the initial phases and can be dealt with most effectively just before they consolidate. To insure rapid reaction to such an attack, planning, including detailed reconnaissance of the area to locate probable DZ and LZ and beach landing areas, is necessary. Mobile base reserves should be within striking distance of these areas. Armor elements are especially effective against airborne and airmobile forces, particularly during the early stages of the ground operations. A major problem is obtaining accurate information of the exact location and the extent of the landings; therefore, good observation throughout the area, an effective warning system, and effective communications are essential.

c. Small-scale attacks that threaten the security of activities in the base area are the responsibility of the base defense force commander as a part of base defense operations. Combat elements, if available, assist the base defense force commander to contain or destroy the enemy airborne, airmobile, or waterborne units.

d. A large airborne, airmobile, or waterborne attack is a part of the main battle; and therefore, beyond the tactical capabilities of the base defense force. The base defense force participates as directed; however, continuous operation of the base remains the primary consideration. Major combat forces of the area commander, operating in the general area, normally are committed against these large forces.

CHAPTER 5
BASE DEFENSE TRAINING

5-1. General

Base defense requires the integration of the base defense force (BDF) and the emergency augmentation force whose primary duties may not involve defense operations. They rarely function together; therefore, an efficient fighting entity can be formed only through proper training. The training of base units for participation in base defense operations is carefully coordinated with and integrated into the full operation of the base. All individuals are trained to participate, at least to a limited degree, in the base defense, and all units are trained to provide at least limited local security for the installations that they operate. All equipment deemed necessary for base defense or for training purposes may not be available. Requests for these items are submitted through channels to the commander of the area or subarea in which the base is located.

5-2. Training Considerations

a. Individual and Unit Training. Most of the training required in support of base defense operations is currently a part of individual and unit training programs. Individuals designated to take any part in base defense operations will probably require additional training in the following areas as applicable to their roles in the base defense effort:

(1) Techniques of ambushes and raids and defensive measures against these types of operations.

(2) Use of hearing, sight, and smell as detection means.

(3) Police-type patrolling and the operation of roadblocks and checkpoints.

(4) Night operations to include use of night observation devices and sensors and special challenge, sign, and countersign techniques.

(5) Cross-training on individual and crew-served weapons available within the unit.

(6) Marksmanship, especially night firing.

(7) Observation post operations with emphasis on security, sound and light discipline, and reporting procedures.

(8) Operation and operator maintenance on special devices employed such as radars, sensors, and night observation devices.

(9) Cross-training on all communications equipment available within the unit and communication techniques.

(10) Barrier construction, mines, and booby-traps.

(11) Patrolling of all types.

(12) Counterattack.

(13) Fire control.

b. Area Training. Base troops receive an orientation on the enemy and his tactics, local customs, social values, and the attitude of the civil population on entry into the base area. The capabilities and procedures of civil police and indigenous forces are explained, since elements of the base and base defense force operate in conjunction with them.

c. Technical Training. Base defense operations utilize special equipment that often requires special training to install and operate. The commander insures proper training of all operators. Since specialized school trainees may not be available, the scope of unit training is expanded. Additionally, specialized maintenance personnel are required in greater numbers to keep equipment operational and to advise and assist operators on their maintenance responsibilities. Maintenance and refresher training is conducted on a cyclic basis.

d. Morale and Psychological Factors. Troops employed in base defense operations are subjected to morale and psychological pressures different from those normally found in regular combat operations. Many of these pressures are human factor considerations caused by infrequent actual

contact with the enemy and the requirement for constant vigilance. Some important considerations follow:

(1) Boredom caused by recurring routine tasks tends to lead to laxity.

(2) Because little physical activity is required in operating or monitoring observation devices or annunciators, individuals tend to become inattentive as well as bored.

(3) Day and night operation disrupt normal sleep and eating routine.

(4) Long periods of inactivity may result when troops are assigned to static defense duty.

Leaders at all echelons must carry out a continuing indoctrination and motivation program to offset psychological pressures. This is accomplished as part of the training program.

5–3. Base Defense Force

a. Training of the BDF follows the normal lines commensurate with the size of the force and the types of units. BDF and Army aviation elements train together and independently.

b. Special emphasis is on training in defense operations, patrolling, offensive operations, and counterattack during both daylight and darkness. Training of air reconnaissance personnel, in addition to their primary functions, addresses the implementation of passive defense measures by base units.

c. Training makes full use of the tank and other mechanized units to form tank-infantry units for the counterattack. Helicopters are used to improve the training of both ground and helicopter personnel.

d. Infantry training is based on the material presented in the FM 7–series, FM 21–75, and appropriate manuals in the 31–series.

5–4. Emergency Augmentation Force

a. Training of individuals and units of the emergency augmentation force requires close coordination and cooperation between the units and the BDF commander. Infantry-type training may have terminated for many when their basic combat training ended. These units come under the command of the BDF commander only when an attack is imminent or is taking place. Further, their extensive tasks in base operation or in other functions within the base decrease their time for infantry training.

b. A function of the base commander is to issue instructions relating to the following training matters.

(1) Training missions and objectives for all emergency augmentation units allocated to the BDF.

(2) Training schedules showing the time to be devoted to base defense training.

(3) Authority of the BDF commander to conduct and supervise such training, to include instructors and detailed training programs and schedules.

c. In accordance with the base commander's instructions, the BDF commander insures the supervision of the training of all units that may become a part of the emergency augmentation force. When units of the emergency augmentation force have received their necessary training, they must learn their part in each defense plan. Initially, the units learn through rehearsals, small unit exercises, and practice by manning assigned positions or taking part in counterattack plans.

5–5. Defense Exercises

a. Defense exercises provide a means of exercising the BDF implementing defense plans, to include testing of the base defense alarm and communications systems. Sector commands conduct exercises to attain proficiency when defending within their assigned areas.

b. Defense exercises are the final and most important step in the training cycle. They provide the means for training the diverse elements of the defense force to act with coordinated effort toward the common end—the defeat of the enemy. These exercises are conducted frequently, under various conditions of weather, and during daylight and darkness.

c. Exercises include, but are not limited to, the following:

(1) Defense by sector commands, to include counterattacks and the manning of selected defense positions.

(2) Employment of the reserve, according to plan, in the counterattack and in manning the defense positions.

(3) Coordination of supporting fires and other means of support with the defense by elements of the BDF.

(4) Integration of the emergency augmentation force with other units of the defense force.

(5) Coordination with other forces of the base, such as the air defense units, for defense.

d. Command post exercises should be held frequently—

(1) To train the staffs of all headquarters involved in defense of the base.

(2) To exercise the fire support coordination agencies.

(3) To test communications.

(4) To obtain the necessary coordination and liaison between the base defense headquarters and the headquarters of the other tenant forces of the base.

e. Defense exercises are employed to familiarize all elements of the defense forces and the base tenant units with the assignments planned for them in the defense of the base against all forms of attack within the enemy capabilities and to provide exercise in these assignments.

APPENDIX A
REFERENCES

AR 310–25	Dictionary of U.S. Army Terms.
JCS Pub 1	Dictionary of United States Military Terms for Joint Usage.
JCS Pub 2	Unified Action Armed Forces (UNAAF).
FM 1–5	Aviation Company.
FM 1–15	Aviation Battalion, Group, and Brigade.
FM 1–110	Armed Helicopter Employment.
FM 3–10	Employment of Chemical and Biological Agents.
FM 3–50	Chemical Smoke Generator Units and Smoke Operations.
FM 5–15	Field Fortifications.
FM 6–20–1	Field Artillery Tactics.
FM 6–20–2	Field Artillery Techniques.
FM 6–40	Field Artillery Cannon Gunnery.
FM 7–Series	
FM 11–21	Tactical Signal Communications Systems, Army, Corps, and Division.
FM 11–23	US Army Strategic Communications Command (Theater).
FM 11–50	Signal Battalion, Armored, Infantry, and Infantry (Mechanized) Divisions.
FM 17–1	Armor Operations.
FM 19–25	Military Police Traffic Control.
FM 19–30	Physical Security.
FM 19–45–1 (Test)	Rear Area Protection.
FM 20–20	Military Dog Training and Employment.
FM 20–32	Landmine Warfare.
FM 20–33	Combat Flame Operations.
FM 20–60	Battlefield Illumination.
FM 21–75	Combat Training of the Individual Soldier and Patrolling.
FM 24–1	Tactical Communications Doctrine.
FM 30–5	Combat Intelligence.
FM 30–20	Aerial Surveillance—Reconnaissance, Field Army.
FM 30–31	Stability Operations—Intelligence.
FM 31–10	Denial Operations and Barriers.
FM 31–16	Counterguerrilla Operations.
FM 31–18	Infantry Long Range Reconnaissance Ranger Company.
FM 31–23	Stability Operations—U.S. Army Doctrine.
FM 31–73	Advisor Handbook for Stability Operations.
FM 31–75 (Test)	Riverine Operations.
(CM) FM 32–5	Signal Security (SIGSEC) (U).
FM 33–1	Psychological Operations—U.S. Army Doctrine.
FM 33–5	Psychological Operations-Techniques and Procedures.
FM 41–5	Joint Manual for Civil Affairs.

FM 41–10	Civil Affairs Operations.
FM 44–1	U.S. Army Air Defense Artillery Employment.
FM 44–2	Air Defense Artillery Employment (Automatic Weapons) M42/M55.
FM 44–3	Air Defense Artillery Employment, Chaparral/Vulcan.
FM 44–5	Procedures and Drill for Vulcan Self-Propelled Weapon System.
FM 44–96	Air Defense Artillery Employment, Hawk.
FM 54–2	The Division Support Command and Separate Brigade Support Battalion.
FM 54–8 (Test)	The Administrative Support, Theater Army (TASTA–70).
FM 61–100	The Division.
FM 100–5	Operations of Army Forces in the Field.
FM 100–10	Combat Service Support.
FM 101–5	SOFM–Staff Organization and Procedure.
FM 101–40	Armed Forces Doctrine for Toxic Chemical and Biological Weapons Employment and Defense.
TC 3–16	Employment of Riot Control Agents, Flame, Smoke, Antiplant Agents and Personnel Detectors in Counterguerrilla Operations.

GLOSSARY

Acoustic sensor—A detection device that senses sound level changes, either through volume or impulse.

Active defense—The employment of limited offensive action and counterattacks to deny a contested area or position to the enemy.

Active vision devices—An item of optical equipment that requires energy projected from a manmade source to provide an image to the user.

Afloat base—A concentration of naval barracks ships, supporting ships, and watercraft for use as a mobile base by both ground and naval forces during a riverine campaign. The base includes the surrounding land and water areas required for close-in security.

Alarm systems—Combinations of compatible intrusion detection devices so arranged as to support one another.

Annunciator—A visual or audible signaling device, which indicates conditions of associated circuits. Usually, this is accomplished by the dropping of a shutter or by activating a signal lamp and by audible sound.

Anti-intrusion devices—Safeguards used to alert security personnel to an impending or attempted intrusion into a secured area.

Area command—A command which is composed of those organized elements of one or more of the armed Services, designated to operate in a specific geographical area, which are placed under a single commander, e.g., commander of a unified command, area commander.

Armed helicopter—Any helicopter that has a mounted weapon or weapon system intended primarily for offensive purposes. It does not include aircraft armed solely for self-protection with a primary mission of other than armed engagements.

Artificial daylight—Illumination of an intensity greater than the light of a full moon on a clear night.

Artificial illumination—Any manmade or man-generated illumination.

Attack helicopter—An armed helicopter modified or designed to search out, attack, and destroy enemy targets and to supplement the fires of ground-based weapons. This includes armed helicopters configured to perform escort, antimechanized, and direct fire support missions.

Battlefield illumination—The lighting of the zone of action of ground combat and combat support troops by artificial means other than invisible rays.

Countersurveillance—All measures taken to prevent hostile surveillance of a force, area, or place, to include counterreconnaissance, electronic countermeasures, and all other countermeasures to deny enemy use of sensors.

Detection—An indication of the presence of a target of potential military interest in a reasonable time, but without recognition of the object.

Direct illumination—A type of battlefield illumination provided by direct light from pyrotechnics or searchlights.

Electromagnetic field—A magnetic field resulting from the flow of electricity.

Exfiltration—The removal of personnel or units from areas under enemy control by stealth, deception, surprise, or clandestine means.

Free fire area (zone)—A free fire area is a specifically designed area into which fire may be placed without any coordination between the force requesting or delivering the fires and the agency establishing the free fire area. The free fire area is used primarily during stability operations and normally requires approval by the host country.

Host country—A nation in which representatives or organizations of another state are present because of government invitation or international agreement. Particularly refers to nation receiving assistance relevant to its national security.

Identification—Discrimination between targets (objects) within a class; e.g., M60 tank, T54 tank.

Indirect illumination—A type of battlefield illumination obtained by employing searchlights using diffusion or reflection techniques.

Infiltrator/intruder—That individual who is making the infiltration attempt.

Infrared light source—Light from which the visible portion of the spectrum has been removed by the use of special filters.

Infrared sensor—A detection device that detects intruders through some interaction with infrared radiation.

Insurgent war—A struggle between a constituted government and organized insurgents frequently supported from without, but acting violently from within, against the political, social, economic, military and civil vulnerabilities of the regime to bring about its internal destruction or overthrow. Such wars are distinguished from lesser insurgencies by the gravity of the threat to government and the insurgent object of eventual regional or national control.

Internal defense—The full range of measures taken by a government (and its allies) to (free and) protect its society from subversion, lawlessness, and insurgency.

Internal development—The strengthening of the roots, functions and capabilities of government and the viability of its national life toward the end of internal independence and freedom from conditions fostering insurgency.

Intrusion detection alarms—Mechanical, electrical, or electronic devices designed to alert security personnel of entry or attempted entry, or of the approach or presence of an intruder.

Lateral communications—Communication between units that are located side-by-side along a front.

Lightning arrester—A device, usually containing spark gaps, which allows currents induced by lightning to flow to earth without damaging electrical equipment.

Line of sight—The unobstructed or optical path between two points. Also used to describe a radio propagation characteristic.

Link—General term used to indicate the existence of communication facilities between two points.

Local security—The routine security of a base.

Magnetic sensor—A device that detects movement of ferrous materials such as vehicles and weapons.

Night visibility plan (NVP)—A plan that coordinates the use of all night vision aids and surveillance devices available to a unit that will be employed in a night operation. It reflects the commander's concept of how these aids will be employed.

Paramilitary forces—Forces or groups which are distinct from the regular armed forces of any country but resembling them in organization, equipment, training or mission.

Passive vision device—An item of optical equipment that requires only available ambient energy to provide an image to the user.

Physical security—That part of security concerned with physical measures designed to safeguard personnel, to prevent unauthorized access to equipment, material and documents, and to safeguard them against espionage, sabotage, damage and theft.

Pressure sensor—A detection device that senses ground pressure differentials caused by footsteps or passage of vehicles.

Recognition—Discrimination between targets (objects) as to class; e.g., tank, truck, gun.

Sapper unit—A unit that specializes in the employment of explosives and demolitions during combat operations.

Seismic sensor—A detection device that senses ground vibrations caused by footsteps or passage of vehicles.

Self-neutralization—A built-in or insertable feature which automatically causes an artificial obstacle to become neutralized at a predetermined time. Self-neutralization can be accomplished by self-sterilization (resulting in an ineffective obstacle) or by self-destruction (resulting in complete elimination of the obstacle by detonation of explosive at a preselected time).

Sensor—A technical means to extend man's natural senses; an equipment which detects and indicates terrain configuration, the presence of military targets, and other natural and man-made objects and activities by means of energy emitted or reflcted by such targets or objects. The energy may be nuclear, electromagnetic, including the visible and invisible portions of the spectrum, chemical, biological, thermal, or mechanical, including sound, blast, and earth vibrations.

Strongpoint—Semihardened field location, with all-round protection for command posts and combat/combat support troops.

Surveillance—The systematic observation of air, surface, or subsurface areas by visual, electronic, photographic, or other means for intelligence purposes.

Viewer—A device that enhances the visual capability of man.

Visible illumination—Any illumination visible to the naked eye.

Wire communication—Communication by telephone, telegraph, teletypewriter, or any other means of communication employing a metallic circuit between the transmitting and receiving equipments.

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